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ECONOMICS REACHES THE SCHOOLS



Is the Woman as Efficient as the Man Educator?

Bertha Y. Hebb

All eyes are trained upon the woman citizen—many of them humorously—to see what she is doing, what she has already done. Among the recent accomplishments attributed to her is that of quickness of decision, for, as a juror, it is declared that in twenty minutes by the watch she is known to have reached a conclusion—whereas it formerly took her an hour and a half to buy a hat; as a policeman at summer resorts she is without a peer, such resorts under her jurisdiction, according to late reports, having grown dreary, unresponsive—moonlight nights included. But her accomplishments as an educator have been unheeded.

What has the woman educator done?

Let us consult the educational rating of some of the states of the Union, together with the number of men and women holding educational positions in these same states, in order to see what share each sex has contributed toward this rating.

In 1920 Dr. Leonard P. Ayres, of the department of education, Russell Sage Foundation, published in his "An Index Number for State School Systems" an educational rating of all the states and territories of the Union. This rating is based upon certain points, ten in number, which constitute the external standard generally accepted throughout the United States as to what is a good school system. These points are:

1. Per cent of school population attending school daily.
2. Average days attended by each child of school age.
3. Average number of days schools were kept open.
4. Per cent that high school attendance was of total attendance.
5. Per cent that boys were of girls in high schools.
6. Average annual expenditure per child attending.
7. Average annual expenditure per child of school age.
8. Average annual expenditure per teacher employed.
9. Expenditure per pupil for purposes other than teachers' salaries.
10. Expenditure per teacher for salaries.

One hundred is the mark of perfection upon this scale of rating.

The state of Montana stands at the head of all the other states with a rating of 76. The question naturally arises: What part have men and women each played in the high standing of this state?

According to the list of school officials in the United States published by the U. S. Bureau of Education, in its "Educational Directory, 1920-21" the positions of an administrative character held by women in Montana are: Every county superintendency position in the state; the state superintendent of public instruction; the deputy state superintendent of public instruction; and the state rural school supervisor. In addition to these administrative positions, 89 per cent of the teaching positions in this state are

held by women. These figures, feminine besides, speak for themselves.

The figures for the state of California, which stands immediately below Montana, are just as eloquent. In this state there are thirty women county superintendents; the following positions in the state department of education are filled by women: the state commissioner of elementary schools, the state supervisor of teacher-training courses in home economics, and the state assistant supervisor of physical education; and every city in the state, with two exceptions, having a population of over 10,000 has one or more women representatives upon its school board. Eighty-eight per cent of the teachers in the state are women.

Arizona, standing third from the top of the list, has a woman state superintendent of public instruction; there are ten women county superintendents (with only fourteen counties in the state); and 88 per cent of the teaching positions are presided over by women.

Are any inclined to rise and declare that the men could have done the job as well, or better, had they been in the ascendancy?

Let us examine the rating of these same states upon the Ayres' scale for 1900, together with the number of women educators at that period.

In 1900 Montana had 25 fewer women county superintendents than at the present time; the per cent of the women teachers was five per cent less; and, although the number of women state officials is not available for that period, it is safe to assume that they were proportionately less. The rating of Montana upon the Ayres' scale for 1900 was only 40, making a gain in rating since women have come in to the ascendancy of 36 points.

A similar condition obtains for the state of California, which, as has been said, is second upon the scale of rating. In the year 1900, when there were thirteen fewer women county superintendents in this state than at the present time, and when the women teachers were six per cent less, her educational rating was 44, making an educational gain by this state of 27 points.

Arizona in 1900, so far as statistics are to be found, had no women county superintendents; the per cent of women teachers at that time was 15.4 per cent less. And the gain of this state educationally since women have come into the ascendancy has been 36 points.

Turning now to the states which occupy a low standing upon the latest Ayres' scale, South Carolina will be found at the foot of the class with a rating of 29, and immediately above come Arkansas and Mississippi with a rating of 30 each.

In these three states combined, so far as can be ascertained, only two women now hold educational positions of an administrative character. The percentage of women teachers in these states is approximately: South Carolina, 86 per cent of the total; Mississippi, 78 per cent; and Arkansas, 63 per cent—plenty of women, to be sure, but not so plentiful as in those states which stand highest upon the Ayres' scale.

In the year 1900, each of these three states had a rating of twenty upon the Ayres' scale, making an educational advance for the period of almost twenty years of but ten points for the state of South Carolina, and nine for each of the states of Arkansas and Mississippi—the combined educational advancement of the three states, it will be seen, is less than that of any one of the states which stand highest upon the Ayres' scale and in which women educators are in the ascendancy.

The large negro population has doubtless been a factor in influencing the low rating of these three states, as well as that of many of the other Southern states. However, Texas, with her goodly share of colored souls, stands fourteen states above the foot of the class. But this state of "The Lone Star," be it said, is employing at the present time the following women school administrative officers: 31 county superintendents; a woman state superintendent; a second assistant state superintendent; a third assistant state superintendent; a state director of home economics; an assistant state director of industrial education; and a woman state statistician. The standing of this state in 1900 upon the Ayres' scale was 24; and, according to the latest scale, it has advanced under the leadership of women seventeen points, a gain of more than half as many points as those of her three sister states combined which stand at the foot of the class, and which employ so few women administrative officers.

Tennessee is the only state employing women administrative school officials which has proved a slacker. In 1900 she employed nine women county superintendents, now there are only four. In this connection, it must not go unsaid, the men of the state are valiantly holding their own—for Tennessee stands ahead of Kentucky upon the scale by one-tenth of a point, and Kentucky, too, with 26 women county superintendents! However, above the discouraging (and questionable) action upon the part of the state of Tennessee, come the encouraging words (or words to this effect) of a celebrated writer—a man, too—of many years ago:

If women keep on imbibing nine-tenths of the religion of the world; eschewing all the whiskey and the tobacco; and implanting four-fifths of the education into the minds of our young—why, there's no telling what they'll do with us!

CHATS DURING RECESS.

A school board in the West delayed in making a choice of teachers, simply because there now was a choice which had not existed previously.

When a Kansas school board prescribed a modest and inconspicuous dress for high school girls, some one wanted to know how to compel their mothers to come forward in setting a good example.

Some teachers denounce school gossip, but not until they have heard the last word of it.

Its a poor schoolmaster who escapes criticism.

The Problem of Teacher Tenure

John C. Almack, Stanford University, California

Teacher tenure is not a simple thing, neither is it very definite. It is more complex than any other element in the school situation; it has its professional, social, educational, and political aspects. It is inseparably bound up with supervision, rating, teacher appointments, training, improvement in service, salary schedules, living conditions, and finally, in the results of the teacher's efforts and the efficiency of the school. The proper solution of the problem is of no more concern to the teacher than it is to the school board, and to the children whom the schools serve.

The conditions of appointment and dismissal of teachers are well known, and within various classes of schools quite uniform. In rural schools teacher appointment and dismissal is almost wholly in the hands of the local school boards; in cities the board is the court of final resort in both respects. Within the terms of her contract some protection is afforded the teacher, though as a rule the grounds for dismissal are sufficiently general, shadowy, and indefinite to render the abuse of the power delegated to school officials easily possible. That the power is not abused oftener is a tribute to the sense of justice of school board members, and except in exceptional cases, the holding of this power does not constitute the most serious aspect of the problem; yet it doubtless contributes to making tenure brief and adds to the anxiety of the teacher.

Many studies of the duration of tenure have been made in the last twenty years, and changes for the better have not been pronounced. It is estimated that there are no less than 150,000 teaching positions vacant every year. Just how many of these are voluntary, and how many are enforced it is impossible to say. Unquestionably by far the greater number come under the first category, yet it should be remembered that unsatisfactory living and teaching conditions may act with as much force to compel a teacher to seek a new position as inability to secure re-election.

In rural schools the teacher "turnover" is greatest. Thirty per cent of the teachers are re-elected. Therefore, the number of months in the school year times 130 gives the average length of service in a state. It is a common practice to elect a rural teacher for a term of three months, and then re-elect her if she pleases the children. In the state of Oregon, from 1900 to 1920, from seventy to ninety per cent of the rural teachers were new to the district they serve; many were new to the county; many to the state. Twenty five per cent were teaching their first term; the average total teaching service was three years.

Conditions regarding tenure in village and small city schools as they concern the elementary teacher are not much better. In urging a high school graduate to prepare herself for teaching one might say to her that her contract will be for nine months, that she may reasonably expect to teach two years in the same district, that her chances of reelection after the first year are as two to one, and that she will continue to teach until the year 1925.

While training is an important factor in determining the length of the teaching service, yet it is easy to over-estimate its influence. The theory is that the greater the investment, the greater the inclination to remain in the profession, as well as the greater likelihood of permanent professional interests. However, an

examination of the statistics of tenure among the high school teachers of this state (Oregon) where college graduation from a standard institution with 22 hours in education is the minimum requirement for certification, the showing is not much better than in the elementary schools, being as follows:

1. In the first class districts (exclusive of Portland) 44.3 per cent are new to the school. Only 8 per cent have had five or more years' experience in the same school.

Fifty per cent of the total teaching force have had fewer than 25 months' experience in all.

Only 34 per cent had a total experience of five or more years.

Forty-one per cent of the principals are new to the school each year.

Only thirteen per cent of the principals have had five or more years of experience in the same school.

Twenty-five per cent of the superintendents are new each year.

Only eighteen per cent have had five or more years of experience in the same school.

2. In second class districts 50.4 per cent of the high school teachers are new to the school each year.

Only six per cent have had five or more years of experience in the same school.

Fifty per cent have had a total teaching experience of less than nineteen months.

Only thirty per cent have had a total teaching experience of five or more years.

Thirty per cent of the principals are new each year.

Only fifteen per cent of the principals have had five or more years of experience in the same school.

3. In third class districts 61.1 per cent of the high school teachers are new to the school each year.

Only two per cent have had five or more years of experience in the same school.

The total teaching experience of fifty per cent is less than ten months.

Only thirty per cent have had a total teaching experience of five or more years.

Fifty per cent of the principals are new each year.

Only five per cent have had five or more years of teaching experience in the same school.

Educators have estimated that a teacher does not reach her maximum teaching efficiency until she has had at least five years of experience, and in passing to a new school after this initial experience she does not reach her maximum in the new position short of two or three years. On this basis we can conclude that fewer than fifty per cent of the teachers in service never reach their maximum of efficiency, and that no more than 25 per cent reach it for a given school.

It is perfectly true that much of the data collected on the past on tenure is of little value because service is expressed in averages, whereas the median instead of the mean should have been used. There are a few teachers in every school system of any size who have had from forty to fifty years of teaching, and this tends to swell the final average while failing to reveal actual conditions.

No remedies for these conditions can be suggested until we discover to what causes they are due. Here is where the complexity of the prob-

lem begins to assert itself. There is further no definite data as to the proportion of shifting due to each cause, and it is clear that in many instances no single cause, but a number which the teacher herself has failed to analyze, must bear the responsibility. Beyond question, the bulk of the causes of annual teacher migration may be grouped as follows:

1. *Economic*—
 - a. Inadequate salaries.
 - b. No provision for competence for old age or disability.
2. *Political*—
 - a. Arbitrary dismissal by school boards.
 - b. Operation of the spoils system.
3. *Professional*—
 - a. Lack of training.
 - b. Lack of professional ideals.
 - c. Inability and unwillingness to cooperate.
 - d. Uncertainty of tenure.
 - e. Dissatisfaction with teaching conditions.
4. *Individual*—
 - a. Desire for change.
 - b. Ill health.
5. *Social*—
 - a. Teachers judged by unscientific standards.
 - b. Community prejudice.
 - c. Poor living conditions.
 - d. Lack of appreciation.
 - e. Marriage.

Mention has already been made of the evil consequences of brief and uncertain tenure, and there is no dispute that they are serious. Some estimates have been made that the efficiency of an industrial plant is about proportional to its labor turnover. On this basis, schools lose about fifty per cent of the efficiency attainable under a policy of continuous service. These results fall under the same general headings as the causes.

Both the community and the teacher suffers the economic consequences, the former through paying what amounts to high prices when the kind of service is considered, and the latter through failing to realize what efficient services are worth, dissipation of savings in securing and reaching a new position, and both are prevented from "realizing the increased returns on increased efficiency due to continuous employment." Long tenure is good business; short tenure is poor business; and any private business operated on a basis of come and go as are the schools would soon be bankrupt, particularly if any degree of skill were required of the employees. An evaluation of the loss on the salary schedule basis alone will show that it runs up into the millions of dollars, and it is certainly true that this total is considerably less than what the teachers who are worth hiring are actually worth.

The professional results are even more important. So long as these conditions continue we can have no teaching profession. Many people of talent and ability refuse to enter an occupation in which employment is so brief and uncertain; only lofty purposes and noble ideals of service keep people of talent and ability in the profession. One confronted with the job of teacher recruiting is likely to dwell long and feelingly on the opportunities for service, the beauty of a life of self-sacrifice without mentioning the very important fact that the period of service will be from three to five years as a rule.

With those that enter the profession with open eyes and without illusions there is likely to be present a consideration that will serve as an excuse for insufficient initial preparation, and a further excuse for overlooking self improve-

ment after they enter service. "What's the use?" while clearly a defense reaction against meeting reasonable minimum requirements, serves a purpose of justifying untrained teachers in their own eyes and in the eyes of school patrons. This careless attitude towards standards is responsible for much poor teaching, prevents professional progress, and results in economic loss.

The children suffer educationally. Here we come into the field of retardation with all of its ramifications—elimination, increased difficulties in discipline, the inability to formulate continuous policies and programs, and many other matters that center around that actual administrative and teaching process.

Educational authorities concede the social purpose of the school. How can the school act as an effective instrument of social progress when the most important of the controlling and directing factors never become in reality a part of the community organization? Does not school instability make for social instability? A shifting teacher population is utterly at variance with the ideal that the school should be an effective and perfected working reproduction of the community.

What to do about it all is a subject of grave concern, and there are as many remedies as there are matters in need of remedy; though in spite of the numerous causes of brevity of tenure enumerated, four or five of these would include ninety per cent of the causes. In several of these the action is indicated by the very nature of the cause as in the case of low salaries. To attract and hold desirable teaching talent we should pay what it is worth, not on a dollar for equivalent service basis, nor by the day or hour, but a sufficient recompense to enable the teacher to live decently and maintain her self respect. By the same reasoning she is entitled to a competence for old age through a pension system or through sufficient salary to enable her to save a competence.

On several of these points we can never be absolute in our selection of remedial measures. What are we going to do about the teacher who goes about from school to school (and there is a great deal of this) simply because she desires a change? The answer seems to be that given by a respected educator when discussing tenure several years ago: "Guard the front door to the profession of teaching." Guard the front door by carefully selecting candidates for training instead of conducting revival services for recruits, and appealing to weak sentiment; make entrance to the profession a privilege to be granted instead of endeavoring to fill out teacher training institutions by the methods of the circus; and, after training desirable teaching material for specific positions, select such teachers for the work for which they are trained, and make their surroundings attractive, compensated by appreciation as well as by adequate salary.

Of desertions of teaching due to marriage there is little to be said and nothing to be done. In a single county in a northwest state, out of a total teaching force of two hundred fifty-six were married in June of this year, and only four of this number expect to continue in the profession. School boards have tried introducing a clause in the teacher's contract whereby she agrees to remain single during the school year, but this measure has probably never prevented a marriage. Yet out of the circumstance, there arises a genuine educational dilemma. Teaching can never become a profession because recruits desert its ranks in wholesale numbers after two or three years of service. On the other hand, some hold, that the presence of married women in the profession tends to prevent the development of group

solidarity, salaries are lower, other interests than school predominate, and a husband may bring about difficulties in school administration. Largely for these reasons some school boards refuse to employ married women. The last point does not seem to be well taken.

The argument is not, however, that married women are better teachers than single women. They may or may not be. This is an individual matter; some are better, some are worse. There is nothing in the mere fact of marriage that warrants women will be better disciplinarians, better instructors, more progressive, more inclined to cooperate. If they have children of their own, they ought to be more sympathetic with all children; a settled home life ought to increase their interest in the community. The contention is, that we ought to so order educational and administrative practice that women may continue in teaching after marriage.

So many elements are included under the topic of dissatisfaction with teaching conditions that an analysis that is concrete and comprehensive is necessary before remedies can be suggested. Supervision is far from being a minor factor; others are difficulties in discipline, poor buildings and equipment, other teachers uncongenial, etc.

In recent years legislative action has been put forward as a means of establishing permanent tenure. The growth of the movement indicates the development of a professional consciousness among teachers, the untenability of the annual election practice, and the wholly democratic tendency among American people to seek an amelioration of unsatisfactory conditions in laws prohibitive or compulsory. While realizing that annual migrations of teachers would still continue under a permanent tenure system, leaders felt that the general effect of such regulations would be good, and would serve to prevent the most flagrant forms of abuses under the antiquated "hire and fire" system. Some of the most important tenure legislation is herewith summarized:

1. Portland, Oregon, 1913, amended 1917, and 1921. Permanent appointment after two years' probation; dismissal on proved charges by vote of five of the seven members of the school board; teacher may appeal to independent commission if vote for dismissal is by majority of school board, only.

2. New York, 1919. Permanent appointment after probationary period of one to three years; removable for cause by majority of board after public hearing; appeal from local board to state commissioner.

3. New Jersey, 1909. Permanent tenure; three-year probationary period. Dismissal or reduction of salary for inefficiency, incapacity, conduct unbecoming a teacher, or other just cause. Charges must be written, reasonable notice given, teacher entitled to counsel; right of appeal from decision of local board to commissioner of education and state board of education.

4. Massachusetts, 1920. Permanent appointment after probationary period of three years; dismissal by two-thirds membership of local board; reasons for dismissal must be given.

5. California, 1921. Permanent appointment after two years of probation; dismissal for cause by majority of board; teacher has right to counsel and to call witnesses (does not apply to rural schools).

Not many statistics are available on the effect that legislation has on tenure. In Portland, Oregon, the average term of service of the teaching force for 1910, 1911 and 1912 was 6.22 years, and fifty per cent had had less than 4.25 years of experience. For the years 1917, 1918 and 1919 in spite of war conditions taking a number of teachers into other lines of work the

average tenure was 8.6 years, and the median 7.2. It seems fair to conclude that permanent tenure does increase the teacher's term of service.

Recently the writer gathered opinions from educational authorities from all sections of the country on matters of detail in connection with working out a satisfactory tenure system. There was practically universal agreement on the following points:

1. The minimum training for entrance to the teaching profession should be four years of high school, and at least two years of additional professional training.
2. Teachers appointed on probation for from two to three years with an opportunity for trying out under more than one principal if failure to secure permanent appointment would otherwise result.
3. Permanent appointment for all teachers, and principals and supervisors.
4. A reasonable requirement for professional growth while in service, and recognition for voluntary improvement.
5. Causes for dismissal stated in as clear and definite terms as possible.
6. Right of dismissal in the hands of the appointing power.
7. Teacher given the right of hearing, counsel, and appeal, the latter to be to professional authority.
8. Acceptable standards of supervision and rating to be adopted and used.

This problem cannot be solved by a single individual; it challenges the judgment and good faith of the best school board members, superintendents, and teachers. Its solution will represent the product, therefore of a cooperative undertaking, in which the chief motive of all concerned will be to provide justice for the teacher, promote her interests, and at the same time protect the children from the incompetent, unprogressive, and unprofessional teacher. There is no single remedy, just as there is no single cause of the deplorable conditions that now exist. Tenure is vitally connected with many elements of the educational situation: salaries, pensions, selection, training, appointment, improvement while in service, and supervision. In both a general and a particular sense policies and programs looking to the promotion of educational efficiency will be concerned with all these; and finally, it will be concerned with securing permanent tenure through regulation and legislation.

Intelligence Tests Introduced.

—The Department of Education of New York City has undertaken a number of intelligence tests this term with the purpose of determining how much reliance may be put upon the measuring of pupil's minds as a basis for grade classification. Not only have 1,100 elementary school graduates entering high school been tested, but 8,000 elementary school pupils and the entering classes in eight schools in East Harlem, have been tested through intelligence examinations.

With the grouping of the pupils on the basis of the results of these tests, it will be possible for the pupils to progress at a more uniform rate of speed, and the teachers will be able to adapt the instruction more nearly to the abilities and needs of the entire class.

It is believed the grouping will show better results than is possible with mere alphabetical classification. The children have also been examined physically and during the summer, the Red Cross health center sought means for remedying the defects revealed.

The intelligence tests used by the school authorities are general adaptations of the army intelligence tests and are intended to test arithmetical reasoning, sentence completion, logical selection of words in sentences, determination of same and opposite words, and the identification of symbols.

City Expenditures for School Health

Ralph G. Hurlin, Department of Statistics, Russell Sage Foundation

The school health movement began in the United States about the year 1892, the first medical inspector of the schools having been appointed in New York City in that year. A decade and a half later according to Gulick and Ayres' *Medical Inspection of Schools*, which was published in 1908, 102 cities all told in the United States had adopted medical inspection to some extent; and by 1914 the United States Bureau of Education found "some form and degree of medical inspection" practised in the schools of 750 places of over 4,000 population, including cities in every state.

The further extension of the movement has continued to be rapid. At the present time there are not many cities in which at least some pretense of medical inspection is not made, and in an increasing number of states there are laws providing for state-wide health supervision for both city and rural schools. But despite the recent wide extension of the movement, it must not be concluded that adequate provision for school health has yet been made. Even among the larger cities the form and degree of the work done varies greatly. While some cities, employing full time school nurses and doctors and conducting regular inspections and clinics, are making large investment in the health of the school children, other cities with equal need are providing only the most cursory forms of medical supervision.

Concerning the inadequacy of present expenditures for school health service, the recent report of the National Committee for Chamber of Commerce Cooperation with the Public Schools on the receipts and expenditures of 375 cities in 1920 says, "In terms of the amount per pupil, the expenditure is less than 35 cents per year. If this health expenditure were confined to nurse service alone, eliminating the more expensive medical inspection and dental service, the total amount would supply one nurse for not fewer than 4,000 children. In other words, the total expenditure allows less than one-third of the minimum amount needed for nurse service alone, with absolutely nothing provided for medical and dental service."

Bureau of the Census Figures.

There are now available regularly compiled figures which indicate the emphasis placed by individual cities on this phase of school administration. These are the figures showing the actual expenditures of cities for school health in the annual census report, *The Financial Statistics of Cities*, which compares each year, by means of a uniform classification, the income, expenditures, and financial condition of the larger cities in the United States. This report for 1919 has recently been issued and is the second in which figures showing expenditures for school health have been presented. The fact that the census bureau has found it expedient to report separate data for this item is itself an indication of the growing importance of the work.

The figures showing the expenditures for school health are given under the heading, medical work for school children, in the classification of health expenditures. They are intended to include all expenditures for this general purpose whether they are made through a department of health or a department of education. The report for 1919 includes data for the 227 cities which were estimated before the recent census as having over 30,000 population. The data are taken from the reports of each city for the fiscal year ending prior to the middle of the calendar year 1919.

Per Capita Expenditures.

The diagram at the bottom of this page compares the 227 cities on the basis of their expenditures for school health as shown in the 1919 report. Expenditures for this purpose are shown for 196 cities, varying in amount from \$47 for Tulsa, Okla., to \$136,000 for Chicago, or using a corrected figure for New York City to \$350,000; while no expenditures for this purpose are given for 31 cities. In constructing the diagram the expenditures for each city have been converted to amounts per capita of population, and the diagram distributes the 227 cities

into nine groups according to these figures. The heights of the columns containing the names of the cities show the relative frequency of each of the specified groups. The number of cities falling in each class is as follows:

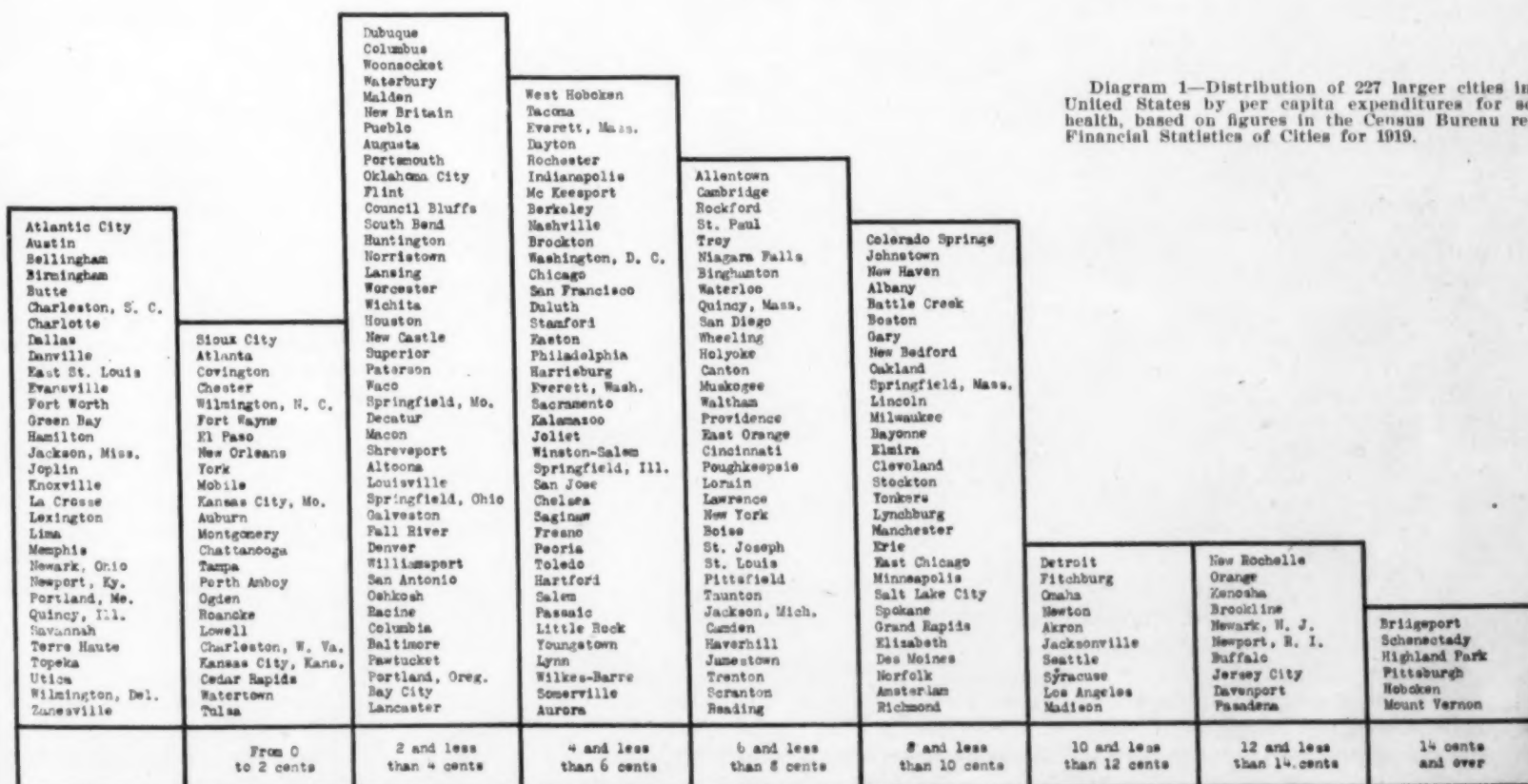
- 6 spent more than 14 cents per capita.
- 10 spent 12 and less than 14 cents.
- 10 spent 10 and less than 12 cents.
- 30 spent 8 and less than 10 cents.
- 34 spent 6 and less than 8 cents.
- 39 spent 4 and less than 6 cents.
- 43 spent 2 and less than 4 cents.
- 24 spent from 0 to 2 cents.
- 31 show no expenditure.

Within each group the cities are arranged in order of the rates, the highest occurring at the top of the column. Of the 196 cities credited with some expenditure Tulsa has the lowest rate, with one mill per capita of population, and Bridgeport, Conn., has the highest with 37 cents. The rates for the other five cities in the highest group are: Schenectady, N. Y., 22 cents; Highland Park, Mich., 20 cents; Pittsburgh, Pa., 19 cents; Hoboken, N. J., 16 cents; Mount Vernon, N. Y., 15 cents.

Examination of the diagram will reveal that in general the cities which have established a reputation for the excellence of their school systems fall in the groups of cities which are making considerable outlay for school health. The diagram emphasizes the fact, however, that most cities are not spending at a high rate for this purpose. The most frequent group in the diagram is that from two to four cents, and of the 196 cities for which some expenditure is shown the median rate is only five cents.

Since on the average children of school age constitute about one-fifth of the total population the rates given at the foot of the columns can be multiplied by five to show approximately the expenditures of the cities per pupil in the schools. This would make the most common rate for 1919 from ten to twenty cents per child and the median for cities which are credited with some expenditure 25 cents.

Diagram 1—Distribution of 227 larger cities in the United States by per capita expenditures for school health, based on figures in the Census Bureau report, *Financial Statistics of Cities for 1919*.



The Accuracy of the Figures.

Some reservation needs to be made concerning the accuracy of these figures. While they are compiled by the census bureau with great care from the official reports of the cities concerned, the warning is made that, owing to the necessity of reclassification and in many cases of distribution of expense as given in the original reports to fit the census classification, there is opportunity for error in the figures. In some cities in which school medical inspection and supervision is carried on by the health department and constitutes a small part of the work of regular health officials it is not found practical to distribute the cost. This is probably the explanation in the case of the 31 cities which are credited with no expenditure for school health in the 1919 report. These cities include so large places as Birmingham, Ala., Memphis, Tenn., Dallas and Fort Worth, Tex., and Wilmington, Del., all cities of more than 100,000 population.

There is, however, a further possibility of error in the figures, for in the reports for both 1918 and 1919, New York City, which introduced medical inspection in this country and early established it throughout its school system, is credited with an expenditure of only \$3,500 for this purpose; while according to reports of the New York Department of Health the actual expenditure for medical inspection and allied work in the schools was not far from \$350,000.

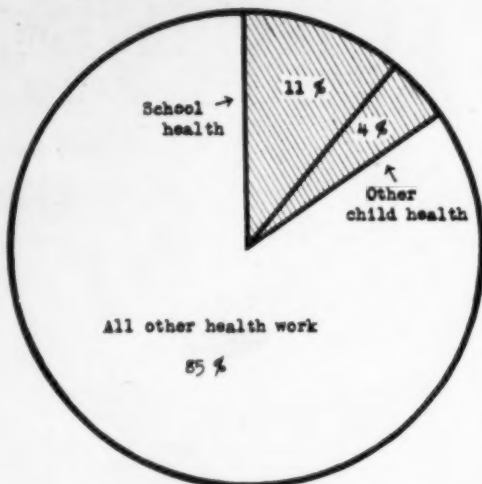


Diagram 2—Two large items in the public health budget.

The Share for School Health.

A further fact shown by the census figures is that even at the present rate of expenditures by cities school health requires a large division of the total public health budget. The total expenditure for public health of the 227 cities of over 30,000 population in the 1919 report is \$20,200,000 and the total for medical work in the schools, including the corrected figure for New York City, is \$2,200,000, or 11 per cent of

the whole. This is shown in Diagram 2, which compares the share for school health with the total and with the closely related division of other child health. The share for school health was larger in the 1919 report than in that for 1918, and there is every reason to believe that it will continue to increase.

The census figures are used in this article, notwithstanding the possibility that they may contain some errors, because the facts that they indicate are significant. In the main it may be assumed that the figures are accurate. Although corrections might change the position of certain cities in the distribution diagram, the character of the diagram would probably not be different nor would its general implications be changed. Such errors as may be found in the figures can easily be avoided in future reports through cooperation of local officials. All that is needed to make this census report a thoroughly valuable comparative record of city expenditures for this and for other items of school expense is consideration of the census method of classification by school officials in making their own reports. School health has become a recognized part of school administration and whether the actual health service is performed by employees of the school or of the health department, the school report should show both the extent and expense of this service.

Educational Progress in Mississippi

H. M. Ivy, State Supervisor of Secondary Schools, Department of Education,
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In the spring of 1920, the Russell Sage Foundation published statistics showing the rank in educational efficiency of the states by index numbers. These index numbers were based on data collected for 1917-18. Mississippi ranked next to last. The educational forces of Mississippi have made no attempt at justifying or explaining away the state's rank, though it might have been shown that her lowest ranks were in financial items, and that the state has the highest percentage of total population attending school of any state in the Union. We are far more interested in improving the efficiency of our schools than in attempting to defend an untenable position; hence, Mississippi has accepted her rating and is doing far more for the improvement of the instruction offered her youth than ever before. It is the purpose of this article to show in a brief way what Mississippi has done in an educational way since 1918.

Legislative Provisions for Schools.

The Legislature of 1920 gave us a compulsory education law which could be enforced. It resulted in 60,000 boys and girls being brought into our schools during the past session. The per capita allotment for the common schools of the state was increased 60 per cent. Provision was also made for an equalizing fund to secure equal length of term and equally well trained teachers for the youth of the poorer counties as well as for those of the richer ones.

The present state superintendent was inducted into office in 1916. Being already familiar with the deficiencies of the rural schools, he began at once to lay plans for a campaign that would bring about their rapid improvement. He sought to do this: First, through organization of the 82 county superintendents of the state, who are called into annual convention for discussing their problems. During the ses-

sion, the state superintendent and the heads of the divisions of his department attend group meetings of county superintendents and principals in certain geographical centers of the state, in an attempt to carry out the above plan; Second, through organization of the trustees of the rural school districts in the various counties, which meetings have been enthusiastically attended; Third, through a vigorous policy of consolidation of schools, both white and negro.

Provision for Separate Schools.

The law in Mississippi provides that wherever there may be as many as 30 children between the ages of 5 and 21, of any particular race, a separate school shall be maintained for that race. In response to this law, we have a dual system of education in our state. In every community there is a separate school for the whites and for the negroes. In a number of counties there are separate schools for Indian children, and in one there is a school for an "unnamed" race. In accordance with this arrangement, this article will treat of the schools of the races separately.

We have at present in Mississippi more than 500 consolidated schools for white children that have displaced at least 1800 one-teacher schools. The valuation of these consolidated schools will exceed \$5,000,000. They range in value from \$1,500 to \$125,000. In connection with one hundred or more of these consolidated schools there are teachers' homes, with a valuation exceeding \$2,000,000. In 28 of these schools, vocational agriculture is offered, and in six of them, vocational home economics. During the past session more than 35,000 children were daily conveyed to and from them at public expense.

Mississippi has in operation 49 county agricultural high schools. These institutions are supported jointly by the county and the state.

Each of them is provided with separate dormitory facilities for the sexes. A standard four-year high school curriculum is maintained with vocational training in both agriculture and home economics. Twenty-five of these schools have their agriculture taught in accordance with the provisions of the Smith-Hughes Law. The total valuation of the buildings, equipment, and land of these schools is \$3,400,000. They enrolled during the past year 6,000 boys and girls, of whom 1,323 were graduated. These schools retain a higher percentage of their pupils for graduation than any other class of schools in this state or, so far as is known, in any other state.

The legal requirements for teachers' certificates for the rural schools of Mississippi do not demand more academic preparation than the completion of the first year of high school; but in practice there are few teachers now at work who have had less than two years of high school work, and a majority of them have had the equivalent of high school graduation or more. The legal requirements for teaching in the high school department of these schools amounts to graduation from a four-year high school; but in practice, more than two-thirds of the teachers in such schools hold degrees from standard four-year colleges, and fewer than ten per cent of them have less than two years of such college training.

Maintaining Negro Schools.

Although consolidation is not a problem in the negro schools, because of the fact that negroes are gregarious and are generally found collected into compact communities, nevertheless, during the past three years more than fifty one-teacher negro schools have been consolidated into two or three-teacher schools. On account of the population density of the negro communities, no transportation has had to be provided

for such institutions. The valuation of these consolidated negro schools varies from \$1,000 to \$100,000. Up to July first of this year more than 200 Rosenwald schools had been erected at a total expenditure of \$11,000,000.

Fourteen county training schools have been established, which maintain a standard three-year high school curriculum, with vocational training in home economics, agriculture and farm mechanics. Seven of the negro schools have complied with the Smith-Hughes requirements in home economics, and eighteen in agriculture. During the summer of 1921, 23 summer normals, each six weeks in length, have been conducted for the benefit of negro teachers, and 3,500 of them have been in attendance thereon.

Only fifteen per cent of the population of Mississippi is urban. According to the federal classification there are only 30 towns with a population of more than 2,500. Each of these towns has its own white school and its negro school. Within the past five years these schools have been rapidly changing to the twelve-grade organization, the six-and-six plan being most frequently used. More than half of the towns have organized a junior high school. The city of Jackson has just completed a junior high school building at a cost of \$250,000, that is modern and up-to-date in every respect. The people take a great pride in their schools, and in general pay at least half of their local taxes to support the public school system.

The state department of education is using every effort to bring about the rapid standardization of the work in the schools of the state. The rural school supervisor works directly in conjunction with the county superintendents. The supervisor of negro schools, with four negro assistants, two men and two women, is rapidly developing the work of their schools. The state high school supervisor has begun the standardization of the work in such small high schools as do only one or two years of high school work, as well as that done in the larger three and four-year high schools.

There are 159 approved four-year high schools in Mississippi, eighteen of which are approved by the Southern Commission on Accredited Schools, one of the standard accrediting agencies of the nation. There are 102 schools doing three years of high school work, 252 doing two years of high school work, and 242 doing one year of high school work, in accordance with the standards of the State Department. In addition to the public secondary schools, there are 12 private preparatory schools, one of which is approved by the War Department, and two of which are approved by the Southern Commission.

Secondary and Normal Schools.

It has hitherto been difficult to retain in school the negro children above the elementary grades. However, there are at present in Mississippi 20 secondary schools giving four years of standard work and 39 secondary schools giving three years of standard high school work for negroes. The favorable attitude of the white people toward the education of the negro may be illustrated by the fact that the city of Hattiesburg, in which the ratio of white to colored is five to one, recently voted six to one in favor of a \$75,000 bond issue for the erection of a high school for negroes.

In order to improve the qualifications of teachers, there have been held during the current summer, sixteen normals of six weeks' duration, which were attended by 3,000 white teachers. The twenty-three summer normals

for negro teachers have already been mentioned. These normals were attended chiefly by rural and elementary school teachers. The minimum requirement set by the State Accrediting Commission for a teacher in a high school is the completion of two years of a four-year college course. It is another notable fact that more than 600 secondary school teachers attended summer schools outside the state at such institutions as Peabody, Tulane, Chicago, and Columbia.

The qualifications of the negro teachers are being rapidly improved. Vocational work is being introduced. During the past year there were 24 supervisors of vocational work, one supervisor to the county. These supervisors were jointly supported by the county and the Jeanes Fund.

Teachers' salaries, both white and colored, within the past three years, have been increased on an average of 50 per cent. The increase in salaries of rural school teachers has been 66.5 per cent. In spite of the present financial depression, there has been practically no decrease in teachers' salaries for the session of 1921-22.

Mississippi has five colleges supported in whole or in part by the state: The University, the Agricultural and Mechanical College for White students, the Mississippi Normal College, the Mississippi State College for Women, and the Agricultural and Mechanical College for Negroes. These five state institutions enrolled during the past session 5,600 students. In order to relieve the crowded dormitories and to provide new buildings and improve the equipment of these institutions, the Legislature of 1920 voted more than \$4,000,000 to be expended thereon.

The recently established normal college, with an enrollment of 1,200 during the past session, has become a potent factor in the training of teachers for rural schools. It is now of Junior College grade, but the rapid increase in the number of high school graduates in its attendance makes it imperative that it move up to senior grade.

Educational Efficiency Improved.

In addition to the state colleges, there are eight denominational colleges offering four years of college work, and six junior colleges offering two years of college work. These institutions enrolled during the past year approximately 3,000. Each of these colleges offers courses in education and has its teacher training department, thus working in harmony with the state in the preparation of teachers.

The Agricultural and Mechanical College for negroes has already been mentioned. In addition to this there are ten colleges for negroes located advantageously over the state. There were 1,100 during the past year in the Agricultural and Mechanical College, and more than 4,000 enrolled in the other colleges. Each of these negro colleges also maintains a teacher training department with a good enrollment.

The state department has connected with it, and works through, the state board for vocational education. This board has charge of vocational agriculture, home economics, trades and industries, and vocational rehabilitation.

There are two state teachers' associations, the one enrolling 7,000 of the 8,000 white teachers of the state and the other 2,500 of the 4,000 negro teachers of the state. The white teachers' association maintains a permanent organization and issues a monthly magazine. The executive secretary of the state teachers' association has his office in the state department. He manages the business affairs of the magazine, directs the teachers' employment bureau, organizes county teachers' associations, and has charge of forwarding the best interests of the teachers of the state.

The sentiment of the people of Mississippi towards education is far more favorable than it has ever been in the history of the state. They realize that one reason why we have not been educationally more efficient is that we have not invested sufficient money to secure the right kind of buildings, equipment, and teachers. The movement for educational progress has begun and the State Department expects to foster

(Concluded on Page 111)



JOHN ELIOT SCHOOL STARTS 222nd YEAR.

The John Eliot School located in Jamaica Plain, Boston, one of the oldest schools in the country, opened its doors on September 15th, for its 222nd year. The school was originally taught by John Eliot and Indians were included in its classes which were opened in the year 1690.

The school is now under the direct supervision of the Boston school committee and contains prevocational classes and evening classes.

Supervision of Instruction at Work: An Illuminating Incident

Chas. A. Wagner, Superintendent of Schools, Chester, Pa.

On a hot August afternoon a man entered the office of a city superintendent of schools, and asked for a chance to talk with that official. When his turn came he was shown the superintendent's private room and bidden to enter. In substance the following conversation passed between the two men:

Citizen: "Mr. Superintendent, will you please give me a transfer for my three children from school A to school B?"

Superintendent: "Where have you lived and where are you living now?"

Citizen: "We have not moved, but my wife and I would like our three children to go to school B because the oldest girl was not promoted in June in school A, while her cousin in school B was promoted."

Superintendent: "Were your other two children in school A promoted in June?"

Citizen: "Yes sir, they were. The oldest girl has not been promoted in school A in three years. We think she would have been promoted in school B."

Superintendent: "But the records show that the oldest girl failed under each of three different teachers. We know that these teachers were good teachers. Perhaps she is naturally slow in learning."

Citizen: "I guess that is true, Mr. Superintendent, but I believe she would have been promoted in school B just the same."

Superintendent: "Do you really believe the change from one school to another would have made a difference in the oldest girl's working ability?"

Citizen: "No, Mr. Superintendent, not at all, but it would have made a great difference in her chances to get work suited to her and to be put into the right class."

Superintendent: "What makes you think so?"

Citizen: "All our friends whose children go to school B have been telling us how the principal of that school is all the time going about among the schoolrooms to find out which children get along well, and which children do not get along well. Then the principal and the teacher find ways of helping the children who do not get along well to get along better. They put them into different classes or they send them into different rooms. The children begin right away to learn and to be more in earnest. My wife and I have talked it all over and we would like our children to go to school B. I do hope, sir, that you will give us your permission. All the parents of school B feel sure that is what makes their children get along so well."

Another Difference Between School A and School B.

School A is a small school. It has but five teachers. The principal teaches classes all day and cannot supervise the actual schoolroom work of the other teachers in the building. The school is very inadequately supervised.

School B has a nonteaching or supervising principal. All his time is given to managing and supervising. He observes, directs and criticises the work of the other teachers of his building.

The kind and quality of the supervision of school B make the difference between the two schools much greater, however, than the mere difference between teaching and non-teaching principal. That is, not all schools with non-teaching principals are far superior to all schools with teaching principals. The exceptional quality of the supervision in school B is that

teachers and principal feel solemnly under obligation to see to it that each child shall learn what the school has for him to learn in the shortest possible time.

Hard and fixed classification of pupils is not consistent with that obligation. The children are grouped and regrouped according to their needs in knowledge and working ability.

This opportunity and obligation of supervision the principal of school B has realized and for the two years since he saw the vision he has made an almost perfect score in its fulfillment. It shall be his right and his pleasure to tell the full and detailed story. This paper shall have the first chance to print it. His story of help given to unusual children, using only his regular teachers, enlisting their sympathy and insight into children's abilities, is most interesting. Principals and teachers who care to find a way to give this special help without "surveys" or "measurements" or "mental tests" or extra labor or outlay of cash, will certainly be interested and will find the story a concrete application of supervision for the fulfillment of its third obligation to the child, namely, the obligation to enable him to learn what the school has for him to learn in the shortest time and pleasantest way.

The Function of the Parent-Teacher Club

H. T. McKinney, Superintendent of Schools,
Aurora, Ill.

What is the specific function of the parent-teacher club? From the administrator's point of view, such an organization can be justified because it does at least three things that cannot be as well done by other agents or through other channels.

A Parent-Teacher club may be the means of giving parents an intelligent interest in the school as their own institution by affording individual assignments of work. It may afford the superintendent of schools a unique opportunity to initiate policies and carry out plans which necessitate parents and teachers sharing alike the administrator's ideas and, in the third place, it brings the teachers in touch with many of the parents under favorable conditions to discuss matters concerning the child in question.

It is advantageous for the administrator to think of his school district as an organization which is composed of individuals who are making an investment in the schools. It is the superintendent's duty in such case to administer the schools in such a way as to cause the individual patrons to feel that they get 100 cents value out of every dollar invested.

To do this, he must know what his patrons want by way of returns and what they need. The Parent-Teacher club gives him opportunity from time to time, to get the reaction of parents to the different phases of school activities and he is able to adjust minor matters in the light of knowledge thus gained.

That is to say, the superintendent is anxious to make the schools fit the outstanding needs of the community that gives the school its existence and there is no better way to determine the nature of these needs as the community interprets the situation, than some sort of open forum each month. In this way the grade

Some Things Shown by the Incident

This uneducated community perceived and understood that:

1. The supervised school is the more desirable school;

2. Supervised teaching suits itself better to the child.

3. Supervision helps the child directly and immediately;

4. Time given to supervision brings results noticeable by the uninitiated.

Faith that supervision can confer these benefits is not largely in evidence. Many school systems are without it if evidence be sought in the supervisory organization. It would hardly be discovered in the supervisory programs of many school principals. Few boards of education have this faith or we would find provision in time and supervisory help in the administrative staff. Not all state and university departments of education have accepted it. If they had accepted it they would have done more than to recommend closer supervision. They would have urged and even demanded such supervision in all programs and in all new laws proposed and enacted.

Supervision of instruction that insures the learning of what the school has to teach in the shortest possible time and with the largest amount of satisfaction to both teachers and children, would find a large market if it could be sold by the bale or the yard or the pound. It can not be manufactured. It must be generated. School B generates this highly dynamic agent as needed from the faith and vision and philosophy of its teachers and principal.

schools located in different parts of a city can be served according to their peculiar local conditions.

School A in our city, for example, has recently purchased a tract of adjoining land by taking as their definite problem to interest the board of education in a supervised playground for that section of town. On this ground, the Parent-Teacher club at its own expense has placed suitable equipment. In doing this practically every patron in that locality has been given some part of the undertaking as a definite assignment and thereby his or her interest has been deepened. School B, likewise, has set for its parents and teachers a definite task in addition to the little round of duties in common with all the clubs.

Here there is a definite demand for work along the lines of Americanization. Many foreign mothers cannot speak English and this club has undertaken to hold meetings in the afternoons, to which such mothers led by their children assemble and have a good time. Along with this endeavor, the board of education furnishes instruction by competent teachers of English, letter writing, arithmetic and the like. It was found necessary in carrying out this program, to secure more dishes and to better equip the gymnasium which is also used as a dance hall. Here again the parents found a job in common and were made happier because they had been engaged to do a definite assignment with the school as an unconscious factor in the background.

The wide-awake superintendent finds the transition quite easy when he attempts to get the parents interested in some additional phase

of school activity or in some change in school procedure. The parents are accustomed to meeting together and by carefully prepared talks by himself and by others selected as leaders, the superintendent finds it rather easy to mould sentiment in favor of what the school needs.

We found, for example, that such matters as visual education and required physical education were easily introduced by first taking up the matter in a thorough way in the Parent-Teacher clubs and some of the mothers, in turn, took the matter to the woman's club. Soon the superintendent found himself in the position of one recommending to the board as a result of a community demand.

These organizations in addition to furnishing personal contact with the schools by giving the parents definite tasks and in addition also, to giving the superintendent an opportunity to study the parents at close range, can be justified on the basis of bringing together the parents and the teachers.

Not long ago, the writer had occasion to study the effects of personal visitation by teachers to the homes of pupils. The most astonishing thing noted in this study, was the fact that teachers usually do not make such visitations. Out of a total of about 13,500 pupils distributed in the elementary grades of 33 schools it was found that during three semesters, the homes of only four per cent of the pupils recommended for visitation as a means of improvement were visited at all.

According to our study, teachers when left to take the initiative in the matter of home visitation, do not visit the homes even if the matter has been called to their attention.

Parents, likewise, do not as a rule, visit the school with the idea of working out with the teacher the best interests of the child. This being true, the modern school must have some other medium whereby the parents and teachers are brought in touch under favorable circumstances. This is another specific function of parent-teacher organizations.

Leaving out of consideration the desirable outcome of bringing together the parents and thereby developing a neighborhood acquaintance that is free from sect or partisan spirit, the Parent-Teacher Clubs can be defended as desirable organizations because they perform the functions set forth in this paper.

SALARIES OF SUPERVISORS OR DIRECTORS IN SOME OF THE LARGER CITIES.

Bertha Y. Hebb.

In a study of salaries of supervisors in fifty-seven of the larger cities of the United States for the year 1920-21, the highest average salary paid these officials is that of the supervisor of manual training (or of industrial subjects), which average is \$3,305 per annum; next, comes the supervisor of health with an average of \$3,134; music, \$3,036, etc., and on down to the lowest upon the list, the supervisors of home economics and of the kindergarten with averages of \$2,740 and \$2,818, respectively, per annum.

The amount paid the individual officials themselves, however, is not in many instances in accord with the averages above mentioned. While the average paid manual training supervisors is higher than all others, with that of home economics lowest upon the scale, the following cities pay the latter more than the first named official: Birmingham, Ala.; Pittsburgh, Pa.; and Rochester, N. Y.

In the city of Detroit, Mich., all the supervisors receive the same salary, \$4,000 a year, with the exception of the supervisor of special

*Primary kindergarten.

SALARIES OF SUPERVISORS, OR DIRECTORS, OF SPECIAL SUBJECTS IN SOME OF THE LARGER CITIES.

CITIES.	Average	Art.	Music.	Penmanship.	Kindergarten.	Primary.	Home economics.	Manual Training.	Physical Education.	Health.	Special Classes.
Akron, Ohio	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600
Albany, N. Y.	3200	3050	2500	2500	2500	1736	2500	3400	3400	3200	3200
Atlanta, Ga.	2000	2500	2100	2100	2100	2000	2900	2000	2000	2000	2000
Baltimore, Md.	2200	2500	2000	2200	2500	2400	2700	2700	2700	2100	2100
Birmingham, Ala.	3540	2004	2740	2820	3540	3340	3000	2260	2260	2260	2260
Boston, Mass.	2300	2500	1950	2460	2460	2600	2600	2460	2460	2460	2460
Bridgeport, Conn.	3220	3220	2460	2460	2460	2460	2460	2460	2460	2460	2460
Cambridge, Mass.	3750	3750	4500	5000	4500	5000	4500	5000	4500	5000	5000
Chicago, Ill.	3600	3600	3600	3000	3200	3500	3600	3600	3600	3600	3600
Cincinnati, O.	3560	3680	3560	3000	3560	3680	3560	3300	3000	3000	3000
Cleveland, Ohio	2625	2625	2135	2250	2250	2250	2625	3600	3600	3600	3600
Columbus, Ohio	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
Dallas, Tex.	2050	2550	2050	1750	2550	2550	2050	2050	2050	2050	2050
Dayton, O.	2590	3500	2640	2740	2940	2540	2540	2540	2540	2540	2540
Denver, Colo.	2412	2700	2167	2412	3000	2340	3400	1758	1758	1758	1758
Des Moines, Ia.	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Detroit, Mich.	2880	2880	2280	2120	2400	2400	2400	2400	2400	2400	2400
Fall River, Mass.	2600	2400	2500	2700	2100	2700	4200	4200	4200	4200	4200
Houston, Tex.	3500	3500	3000	2300	3500	3800	3800	3800	3800	3800	3800
Indianapolis, Ind.	4100	3800	3900	4100	4100	3800	2500	2300	2300	2300	2300
Jersey City, N. J.	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800	3800
Kansas City, Mo.	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840	3840
Los Angeles, Calif.	3840	3840	4520	3840	3840	3840	3840	3840	3840	3840	3840
Milwaukee, Wis.	2750	3200	2200	2500	3300	3300	3300	3300	3300	3300	3300
Minneapolis, Minn.	1700	1700	1250	1250	1250	1250	1250	1250	1250	1250	1250
Nashville, Tenn.	2900	3200	2900	2900	3900	4100	3800	2500	2300	2300	2300
Newark, N. J.	2975	2975	1850	2850	2500	2500	2500	2500	2500	2500	2500
New Bedford, Mass.	2750	2650	2650	2100	1850	1900	2650	2100	2100	2100	2100
New Haven, Conn.	3500	5500	5000	5000	5500	5500	5500	5500	5500	5500	5500
New Orleans, La.	1625	1675	1550	2500	2200	2200	2200	1800	1800	1800	1800
New York, N. Y.	3060	3660	2820	2820	3220	2840	3744	3744	3744	3744	3744
Norfolk, Va.	2200	2500	2400	2600	2700	2200	2000	2000	2000	2000	2000
Oakland, Calif.	2200	2000	2200	2900	2900	5000	2100	2100	2100	2100	2100
Omaha, Nebr.	4510	5060	3410	4510	4510	4510	3410	3410	3410	3410	3410
Paterson, N. J.	4000	4000	4000	4000	4000	4000	3600	6000	6000	6000	6000
Philadelphia, Pa.	3500	2000	1250	1700	1500	2050	2350	1150	1150	1150	1150
Pittsburgh, Pa.	1793	2420	2420	2200	1793	2420	2420	3000	3000	3000	3000
Portland, Oregon	3900	4100	4100	3300	3600	3400	4000	3800	3800	3800	3800
Providence, R. I.	2800	2550	2400	3500	2000	2600	2500	3000	2500	2500	2500
Reading, Pa.	1950	1950	2214	2214	1950	1950	1950	1950	1950	1950	1950
Richmond, Va.	1890	2150	1990	2110	2290	1890	1800	1800	1800	1800	1800
Rochester, N. Y.	3000	3660	2940	3300	3660	3660	3660	3660	3660	3660	3660
Salt Lake City, Utah	2550	2550	2450	2250	2250	2250	3400	3400	3400	3400	3400
San Antonio, Texas	3175	3175	4000	4000	3400	5000	4000	5000	2600	2600	2600
Scranton, Pa.	2600	2700	2850	2500	3500	2650	3850	2400	2400	2400	2400
Seattle, Wash.	2450	2650	2450	2450	3600	2500	2500	2500	2500	2500	2500
Spokane, Wash.	2500	2800	2200	2500	2200	3750	2500	1900	1900	1900	1900
Springfield, Mass.	2350	2350	2250	2250	2900	2150	4500	4500	4500	4500	4500
St. Louis, Mo.	2740	2640	2900	2740	3020	2740	2740	2740	2740	2740	2740
St. Paul, Minn.	2000	2000	2000	2000	2000	1500	1500	1500	1500	1500	1500
Syracuse, N. Y.	3250	3250	2000	1800	2000	3250	2500	2500	2500	2500	2500
Toledo, Ohio	2850	2375	2375	3000	2250	2975	2850	3300	3300	3300	3300
Trenton, N. J.	2740	2640	2900	2740	3020	2740	2740	2740	2740	2740	2740
Washington, D. C.	2000	2000	2000	2000	2000	1500	1500	1500	1500	1500	1500
Wilmington, Del.	3250	3250	2000	1800	2000	3250	2500	2500	2500	2500	2500
Worcester, Mass.	2850	2375	2375	3000	2250	2975	2850	3300	3300	3300	3300
Youngstown, Ohio	2850	2375	2375	3000	2250	2975	2850	3300	3300	3300	3300

classes who receives \$4,800; the same is true for the city of Los Angeles, Calif., where the pay for each is \$3,840 a year, with the exception of the supervisor of health who receives \$3,900. In the city of Akron, Ohio, all the supervisors receive the same salary, \$2,600 a year.

The highest paid individual upon the list of fifty-seven cities is the supervisor of health of Pittsburgh, Pa., who receives \$6,000 a year; the supervisors of the city of New York upon the whole, however, are the highest paid, the minimum being \$5,000 a year, the maximum \$5,500.

The following table alphabetically arranged by cities, gives the salaries of supervisors in fifty-seven of the larger cities. The blank spaces in some of the columns do not necessarily indicate that the school system does not have certain positions. Rather that the data for the position were not available.

NEW YORK RURAL SCHOOL ODDITIES.

There are more than three thousand rural schools in New York state having an attendance of less than ten pupils in 1920. Of this number 15 had an average daily attendance of one pupil; 52 of two pupils; 167 of three; 259 of four; 392 of five; 430 of six; 556 of seven; 535 of eight, and 612 of nine, comprising in all 3,018 of the 8,600 single-room schools in this state.

Dr. George M. Wiley, commissioner of elementary education, in arguing for the consolidation of rural schools, says: "When these facts are considered in connection with the type of service which these schools are rendering the community and with the professional training—or lack of it—of the teacher employed, it is quite evident that the smaller schools in the rural communities are not only among the most expensive on the basis of the per pupil cost, but also are rendering a very small return to the communities which they serve."



The Teacher's Load

S. W. Johnson, Superintendent of Schools,
Brookings, S. D.



The question of the teacher's load has suggested itself in some form to many people interested in the function of a teacher's activities in a public school. The North Central Association of Colleges and Secondary Schools has, in a limited way, endeavored to define a teacher's load in the accredited high schools. State supervisors have considered the teacher's load in arranging standards for accredited schools which are to receive state aid or credit. Many endeavors have been made to help superintendents and principals to find some system for rating teachers and to determine their load. Teachers' organizations have sought for some satisfactory standard or limitation in fixing a fair load for a teacher. The combined judgment of many able thinkers has been expressed in standards for rating teachers. The size of the class, the number of pupils in the class, the length and number of periods per week, the hours of teaching per week, the social affairs of the committees, have all been considered in rating a teacher's load. Superintendents have determined the hours per week of service for teachers, the unit cost per subject taught, the cost per subject per month or year, the number of student hours of instruction, and the cost per thousand student hours. With this information before superintendent and teacher, there is yet the personal equation of the class which the teacher must meet that cannot be revealed in mere tabulation of data. These plans, standards and guides are all helpful but there is still no uniformity in defining a teacher's load.

The aim of this study is to help find, from the judgment of teachers, some median or fair estimate of the common practice for assignment of work to teachers. It is not the intention of this study to solve any problem or to attempt to fix some new standard. The aim is to know more about a teacher's load, just as the aim in studying Shakespeare is to know more about Shakespeare rather than to solve Shakespeare or recommend Shakespeare or measure Shakespeare. People study many subjects for the purpose of knowing more about them. Some of the many elements in a teacher's work are inquired into from the standpoint of teachers and supervisors. A common understanding of the load assigned or received makes possible better cooperation.

It is not the intention in this discussion to present the teacher's load from the viewpoint of the citizen. To many of them the teacher's load could be dispatched immediately by saying that it consists of teaching in the class and maintaining discipline. It might be frankly said that this inquiry is not for the purpose of commiserating the teacher but rather to appreciate the commendable things which are being done by America's most faithful servants.

This problem presents itself from various standpoints and it has many modifications. For instance, we might consider approaching it from the standpoint of the amount of work to be done in a given unit of time or determining the amount of work that an average teacher

could do per day. Without long study and much investigation these are questions that cannot be satisfactorily answered. Future study may well be made by educators in order to determine some standards for rating teachers or measuring their efficiency in relation to the load which teachers should carry.

The General Situation.

The North Central Association of Colleges and Secondary Schools limits the number of daily periods of classroom instruction as follows: "The number of daily periods of classroom instruction given by any teacher should not exceed five, each to extend over at least forty minutes exclusive of all time used in the changing of classes or teachers. The Board of Inspectors will reject all schools having more than six recitation periods per day for any teacher.

"The Association holds that no teacher should be required to conduct more than 30 classroom exercises or recitations a week; while it advises that the maximum should be 25 exercises a week.

"For interpreting this standard in connection with laboratory work in science and in vocational subjects as hereafter defined and in connection with study-room supervision, a double period may be counted as the equivalent of one classroom exercise provided that no combination of such work amounting to more than 35 periods a week be required of any teacher."

What consideration is taken of assemblies, hall duty, playground supervision, committees, or social calls for the school? These regulations make no provision for complexities in courses of study.

Many superintendents have arranged plans for measuring teachers from their educational efficiency, social efficiency and professional efficiency. Others endeavor to pay teachers on the basis of tenure of service, advancement in scholarship and personal merit. Evidently the teacher's load is viewed from various standpoints since her salary is sometimes based upon what she achieves. Other systems of supervision determine the teacher's load from the number of hours per week or the number of classes per day. Frequently no recognition is given to a difference in the ease of teaching subject matter, the number of reports to be made out, the amount of social duties or committee work devolving upon the teacher. Often little recognition is given to the reorganization of a school curriculum or the transition taking place in the method or subject matter when work is assigned. These situations have prompted this study of the teacher's load as the teacher herself rated it.

In September 1920, 234 copies of the following questionnaire were sent to seventeen schools of which ten replied with 102 questionnaires checked:

Questionnaire on Teacher's Load in School Work. Justification of Data.

An inquiry into the question of the teacher's load has many problems of interest to teachers and superintendents. What portion of your daily

load is represented by the parts listed in this questionnaire? Please rate in terms of per cent, 100 per cent being the total daily load for teachers in all school work of the day. To illustrate: the per cent of the teacher's load which attitude of pupils demands should be placed in the space marked per cent at the right. Whatever this total per cent is that should be distributed in the suggestions under attitude of pupils and likewise in the other nine divisions.

1. *Attitude of pupils toward school activities.* %

a. Stubbornness .. %	g. Envy .. %
b. Dishonesty .. %	h. Hatred .. %
c. Shiftlessness .. %	i. Laziness .. %
d. Falsehood .. %	j. Disobedience .. %
e. Deceit .. %	k. Untidiness .. %
f. Jealousy .. %	l. Others .. %
2. *Classroom instruction* .. %

a. Hearing of recitations .. %
b. Assignment of lessons .. %
c. Daily plans in organization of instruction .. %
d. Others .. %
3. *Discipline* .. %

a. In classes .. %
b. In halls and assemblies .. %
c. On playground .. %
d. As modified by:
Community .. %
Parents .. %
Supervisor .. %
Pupils .. %
e. Others .. %
4. *Professional Growth* .. %

a. Academic and professional training for teaching .. %
b. Growth for service .. %
c. Recreational studies .. %
d. Others .. %
5. *School organization* .. %

a. Buildings .. %
b. Number of classes .. %
c. Size of classes .. %
d. Length of periods .. %
e. Cooperation of departments in schools .. %
f. Individuality of supervision .. %
g. Attitude of school board toward teachers .. %
h. Others .. %
6. *Social activities of the school* .. %

a. Literary societies .. %
b. Debating .. %
c. Social activities as clubs, dances, etc. .. %
d. Athletics .. %
e. Financial activities .. %
f. Social duties as surveys, Red Cross, Salvation Army, Y. M. C. A., etc. .. %
g. Employment agencies in the school for students .. %
h. Others .. %
7. *Community* .. %

a. Standing of:
Schools .. %
Teachers .. %
Education .. %
b. Recognition of school hours in outside attractions .. %
c. Health .. %
Attendance .. %
Morale of Students .. %
d. Others .. %

8. Tenure %
 a. Pleasure in position %
 b. Financial gain %
 c. Others %
9. Home life %
 a. Family (Religious, environment, social desirabilities, educational advancement) %
 b. Demands at home %
 c. Comforts %
 d. Others %

Name Position
 Subjects taught

Of the questionnaires which were returned three were marked so that the data could not be interpreted. In December 1920, 500 copies of the questionnaire were mailed to fifty different schools of which twelve replied with 140 questionnaires checked. All questionnaires were sent in random distribution to cities varying in size from 900 to 14,000 in population. The purpose of mailing the same questionnaire after an interval had elapsed was to make a study of the situation in other schools under different conditions and at a more advanced period in the year. It was hoped that the data secured from the second study might prove valuable in comparison with the first.

These questionnaires were compared irrespective of the subject taught or the position held by the teacher. After these data were compared the selection was made on the basis of sex. The men and women in high school were tabulated and classified separately. Data have been summarized for economy of space.

Justification of Data.

For those who doubt the truth of personal judgment in a study of this kind it is only necessary to suggest that practically all business is conducted on the basis of personal judgment. The political structure underlying all government has been founded upon personal judgment. The courts and American jurisprudence have no other basis than the judgment of people living and the records of the past.

In order to illustrate how accurate the combined judgment of persons may be the following test was made: A line was drawn on the blackboard before a group of 33 teachers, seven men and 26 women. Each teacher was asked to write the length of the line to the best of his judgment and under no conditions to change this judgment until all reports were given. The guesses of each teacher were recorded. The average of the guesses was found to be 19.3 inches, the median guess was 18.95 inches. The length of the line was 19.5 inches. The deviation of about one per cent from the actual length of the line in percent is of no great consequence. Given a large number of guesses under different conditions the average or median guess would approximate the true length of the line more closely. This illustrates the truth underlying the combined judgment of many teachers in the study of their load. The accuracy of 102 or 140 judgments should be satisfactorily correct.

Does the Attitude of Pupils Toward School Activities Affect a Teacher's Load?

In fairness to any teacher some inquiry should be made into the likes of children, their former training, and their attitude at the time they enter the class. After the teacher has worked with a class some opportunity should be afforded for measuring, in rather concrete terms, the achievements of this group of children. It is the custom to inquire into the health of children entering a class, to know their ages, to understand something of their former school attendance and training. A teacher likewise should know quite definitely

TABLE I.

	Total Checking		Median %		Average	Cost per \$1000 on basis of Ave. Median
	A	B	A	B	Median %	
1. Attitude of Pupils.....	96	137	10	10	10	\$100
a. Stubbornness	38	54	2	2	2	
b. Dishonesty	59	68	1	2	1.5	
c. Shiftlessness	62	75	2	3	2.5	
d. Falsehood	25	24	2	1	1.5	
e. Deceit	29	20	1	1	1	
f. Jealousy	20	12	1	1	1	
g. Envy	13	8	1	1	1	
h. Hatred	9	9	1	1	1	
i. Laziness	84	117	3	4	3.5	
j. Disobedience	38	53	1	2	1.5	
k. Untidiness	62	68	2	2	2	
l. Others .....	..	..	..	..	....
2. Classroom Instruction	97	140	35	50	42.5	\$425
a. Hearing recitations	85	130	15	25	20	
b. Assigning lessons	79	120	5	5	5	
c. Daily plans	89	135	10	10	10	
d. Others	34	40	10	5	7.5	
3. Discipline	98	139	9	10	9.5	\$ 95
a. In classes	77	118	3	5	4	
b. Halls and assemblies.....	78	119	3	5	4	
c. On playground	30	48	2	2	2	
d. Community	21	15	1	2	1.5	
Parents	24	19	1	3	2	
Supervisor	12	..	1	..	1	
Pupils	17	16	2	2	2	
e. Others	9	10	2	2	2	
4. Professional Growth	89	119	10	10	10	\$100
a. Training	55	70	4	5	4.5	
b. Growth for service.....	51	90	3	4	3.5	
c. Recreational study	55	68	2	3	2.5	
d. Others	20	18	3	2	2.5	
5. School Organization	70	94	10	10	10	\$100
a. Buildings	33	27	2	3	2.5	
b. Number of classes.....	40	38	3	3	3	
c. Size of classes.....	46	56	3	4	3.5	
d. Length of periods.....	29	26	3	2	2.5	
e. Cooperation of department.....	20	25	2	3	2.5	
f. Supervision	22	17	2	3	2.5	
g. School boards	12	9	3	2	2.5	
h. Others	14	8	7	4	5.5	
6. School Activities	66	93	8	5	6.5	\$ 65
a. Literary Societies	30	32	4	3	3.5	
b. Debating	8	8	2	2	2	
c. School activities	30	36	3	2	2.5	
d. Athletics	25	26	2	3	2.5	
e. Financial activities	16	10	2	2	2	
f. Social duties	24	36	3	2	2.5	
g. Employment agency	5	..	2	..	2	
h. Others	21	31	5	5	5	
7. Community	83	91	7	5	6	\$ 60
a. Schools	36	32	2	1	1.5	
Teachers	35	40	2	2	2	
Education	26	28	2	2	2	
b. School hours	24	29	1	2	1.5	
c. Health	43	27	2	2	2	
Attendance	53	31	2	3	2.5	
Morale	39	26	2	2	2	
d. Others	11	10	1	2	1.5	
8. Tenure	54	56	5	5	5	\$ 50
a. Displeasure	37	15	3	2	2.5	
b. Financial Gain	40	37	3	4	3.5	
c. Others	20	19	2	3	2.5	
9. Home Life	73	72	5	5	5	
a. Family	40	39	3	3	3	
b. Demands at home.....	44	50	2	3	2.5	
c. Discomforts	40	16	2	2	2	
d. Others	16	16	2	3	2.5	

just what is the attitude of her class toward school activities at the time it is assigned to her. The efficient business man makes an invoice when he assumes the management of a stock of goods and is satisfied only when an invoice is made at the close of his responsibility. A competent bookkeeper insists upon a balance of the books at the time he receives them and in turn wishes to leave a true and accurate balance at the close. The modern, efficient teacher has a right to know just what she has received in her class, what progress has been made and she should be able, in quite definite terms, to report to her successor the educational and social progress of her class.

The success of a class depends upon the health, attendance, and interests of the pupils,

the conditions of the room, hour of the day and the employment of the pupils previous to coming to school. In one class a teacher may have a majority of pupils who, early in life, have learned lessons of industry, willingness to carry responsibility, courage, obedience, good will toward teachers and associates. In another the children may have learned principally of jealousies, indolence, deceit, dishonesty and theft. No doubt the teacher's load is varied greatly in the same room under such conditions in different periods of the day. These problems suggest an endless task for discussion and demand countless hours of work in order to satisfactorily solve them. Nevertheless, they demand recognition of thoughtful school people and the day is soon at hand when some honest endeavor

TABLE II.

Division of Questionnaire	H. S. Men				H. S. Women				All Checking Combined			
	A		B		A		B		A		B	
	T	M	T	M	T	M	T	M	T	M	T	M
1. Attitude of Pupils.....	9	10	17	12	49	10	38	10	96	10	137	10
a. Stubbornness	3	2	7	2	18	1	18	2	39	2	54	2
b. Dishonesty	7	1	10	3	28	2	16	2	59	1	68	2
c. Shiftlessness	4	2	12	4	24	2	24	4	62	2	75	3
d. Falsehood	2	1	2	1	9	1	7	1	25	2	24	1
e. Deceit	1	2	6	1	10	1	6	1	29	1	20	1
f. Jealousy	1	1	1	1	7	1	3	2	20	1	12	1
g. Envy .....	..	..	1	1	3	1	..	..	13	1	8	1
h. Hatred	1	1	2	1	1	3	1	2	9	1	9	1
i. Laziness	7	4	15	5	39	3	34	4	84	3	17	4
j. Disobedience	2	2	6	3	19	1	16	2	38	1	53	2
k. Untidiness	6	2	7	1	28	3	19	2	62	2	68	2
l. Others	1	3	1	10	10	4	2	3.5	26	4	19	2
2. Classroom Instruction.....	9	35	17	40	48	35	41	50	97	35	140	50
a. Recitations	10	18	16	20	44	20	40	25	85	15	130	25
b. Assignment	9	5	12	5	40	5	36	8	79	5	120	5
c. Daily plans	9	9	18	10	43	10	39	10	89	10	135	10
d. Others	4	10	5	5	13	8	5	5	34	10	40	5
3. Discipline	11	10	20	10	46	7	36	13.5	98	9	139	10
a. In classes	4	1	21	7	37	2	30	5	77	3	118	5
b. Halls and Assemblies.....	6	4	12	5	36	4	32	5	78	3	119	5
c. On play grounds.....	5	2	3	1	1	2	1	1	30	2	48	2
d. Community	3	3	5	2	8	2	4	4	21	1	15	2
Parents	2	4	5	2	8	2	6	2	24	1	19	3
Supervisor	2	1.5	1	2	6	1	1	3	12	1	..	..
Pupils	2	1	3	1	7	2	4	5	17	2	16	2
e. Others .....	..	..	1	1	2	2	..	..	9	2	10	2
4. Professional Growth	8	10	16	10	43	8	32	10	89	10	119	10
a. Training	5	4	11	4	24	4	10	5	55	4	70	5
b. Growth for service.....	6	4	14	5	19	4	19	3	51	3	90	4
c. Recreational study	5	3	11	3	39	3	19	3	55	2	68	3
d. Others	2	2.5	4	1	8	3	1	4	2	3	18	2
5. School Organization	5	10	11	8	32	10	29	8	70	10	94	10
a. Buildings	4	2	2	1	10	2.5	10	4	33	2	27	3
b. Number of classes.....	4	3	6	2	19	3	9	4	40	3	38	3
c. Size of classes.....	2	2	4	2	24	3	16	4	46	3	56	4
d. Length of periods.....	3	2	3	2	13	3	6	3	28	3	26	2
e. Cooperation	2	1.5	8	3	5	2	3	2	20	2.5	25	3
f. Supervision	1	1	2	1.5	8	3	3	5	22	2	17	3
g. School boards	1	1	2	1	5	2	1	1	2	3	9	2
h. Others	1	1	3	1	3	20	2	9	14	7	8	4
6. Social Activities	8	7.5	13	8	41	10	28	10	66	8	93	5
a. Literary societies	5	2	5	2	13	3	11	5	30	4	32	3
b. Debating	2	2	2	1.5	5	2	3	4	8	2	8	2
c. Clubs, dances, etc.....	3	1	5	2	21	3	13	5	30	3	36	2
d. Athletics	4	2	8	4	16	3	5	2	25	20	26	3
e. Financial	3	2	5	2	6	2	3	2	16	2	10	2
f. Social duties	1	1	3	4	10	2	3	5	24	3	36	2
g. Employment agencies	1	1	..	..	1	1	..	..	5	2	..	..
h. Others	1	5	5	2	11	10	9	9	21	5	31	5
7. Community	5	3	8	5	43	5	33	5	83	7	91	5
a. Schools	4	2	4	1	22	1	4	1	36	2	32	1
Teachers	3	2	3	2	18	1	10	2	40	2	35	2
Education	2	1	2	3.5	17	1	4	2	26	2	28	2
b. School hours	1	1	3	1	12	2	8	2	24	1	29	2
c. Health	2	1	2	1.5	14	1	6	3	43	2	27	2
Attendance	4	2	2	2.5	19	1	10	3	53	2	31	3
Morale	4	1	4	2	16	3	13	2	39	2	26	2
d. Others .....	..	..	1	1	2	1	1	1	11	1	10	2
8. Tenure	6	7	5	4	28	5	16	5	54	5	56	5
a. Displeasure	3	3	2	2	17	5	7	1	37	3	15	2
b. Financial gain	4	3	3	4	19	3	10	3	40	3	37	4
c. Others	1	5	4	2	8	2	1	10	20	2	19	3
9. Home Life	5	12	7	7	38	5	20	4	73	5	72	5
a. Family	2	2	5	3	17	4	7	5	40	3	39	3
b. Demands at home.....	3	5	3	5	22	2	11	2	44	2	50	3
c. Discomforts	3	5	2	2	20	2	5	2	40	2	16	2
d. Others .....	..	..	4	2	9	3	1	3	16	2	16	3

must be made to answer them. If teaching becomes a profession and a scientific business more regard and respect will be felt by school authorities for this fundamental type of work. About a year ago these problems were suggested in a rather trying discussion with some teachers about merits and justice of work which had been assigned for the year. None of them could agree on a common basis for decision.

In order to present the data in table I, compactly for the ease of reading the first investigation is marked A, the second is marked B. These data should be read as follows: In Attitude of Pupils in column A, or the first investigation, 96 persons checked the questionnaire, in

the second investigation in column B, 137 checked. The median percent of the load in the first investigation under column A is ten, the median percent in the second under column B is ten per cent. The average of both medians is ten per cent. If ten per cent of a teacher's load is consumed in dealing with the attitudes of pupils the cost, on the basis of \$1,000 per school expenditures, is \$100. Since medians are used in computing items of approximate cost in Table I, the total reveals a variation of about five per cent. But the value for comparative purposes is not disturbed, for it is recalled that there are nine divisions in the questionnaire from which this variation occurs. The average per cent of error is less than one which

was found in the measurement of the line in the experiment in the introduction of this study. The most outstanding items for comparison are the close relations of medians in the two investigations. The medians for men and women present similar relationships.

For convenience a comparison of data for high school men and women teachers is made with the total number of teachers checking each set of questionnaires. In Table II this summary of all data is compiled. These data should be read as follows: In the first study, or questionnaire A, nine high school men teachers checked the replies which give a median of ten per cent in their load as affected by the attitude of pupils toward school activities. Seventeen men teachers in high schools checked the second questionnaire, B, with a median of twelve per cent. Forty-nine women teachers in the high schools in questionnaire A give a median of ten per cent of their load due to the attitude of pupils. In the second questionnaire, or B, thirty-eight checked with a median of ten per cent. All teachers who checked the first questionnaire total 96 with a median of ten per cent of the load as affected by attitude of pupils. In the second replies 137 teachers give a median of ten per cent.

HOW TO READ THE DATA.

The reader may interpret the distribution of these data on the attitude of pupils toward school activities as follows: In the first column in Table I is the total number of persons checking the items in the first study. In the second column is the total number checked in the second study. To illustrate: ninety-six persons in the first study checked attitude of pupils; thirty-eight checked (a) which is the factor of stubbornness; fifty-nine checked (b) or dishonesty; and sixty-two checked (c) in like manner. In the third column will be found the median per cent for each of these questions. To illustrate: the median per cent of the teacher's load as the result of attitude of pupils toward school activities in the first study is ten; the median per cent of the teacher's load from dishonesty is one; the median per cent of the teacher's load from stubbornness is two. In this order the data may be read under each section of the questionnaire. The fourth column contains medians for the second study or "B". An average of the two medians is found for each item which is arranged in column five. On the basis of \$1,000 of cost each of the nine items is computed by the average of the median per cents and the amount of cost by the item is placed in column six.

In the first study 96 teachers of the 102 who checked this questionnaire recognized the attitude of pupils toward school activities as a factor in the load. The median per cent of the teacher's load due to the attitude of the pupils is ten. In the second investigation 137 teachers recognized the attitude of pupils as a part of the load with a median of ten per cent. The greatest factor under attitude in the first study is laziness, the second shiftlessness, the third untidiness, the fourth dishonesty, the fifth stubbornness, the sixth disobedience, the seventh deceit. In the second study laziness is first, with 117 teachers checking it. Shiftlessness is second, dishonesty and untidiness tie for third, stubbornness is fifth, disobedience is sixth, falsehood seventh, deceit eighth. These attitudes are ranked in the order of importance in both investigations for ease of comparison.

Attitude according to rank of importance in questionnaires A and B.

Questionnaire A

1. Laziness
2. Shiftlessness
3. Untidiness
4. Dishonesty
5. Stubbornness
6. Disobedience
7. Deceit
8. Falsehood
9. Jealousy
10. Envy
11. Hatred

Questionnaire B

1. Laziness
2. Shiftlessness
3. Untidiness
4. Dishonesty
5. Stubbornness
6. Disobedience
7. Falsehood
8. Deceit
9. Jealousy
10. Hatred
11. Envy

The agreement in rank by groups of teachers under different conditions in these two studies is significant of an underlying truth in this investigation.

A teacher is deserving of consideration from the parents when these data are considered. The child acquires these characteristics in his daily life at home and from the community. It is only fair that the understanding be quite clear. These attitudes which children bring from home are not the product of the teacher's work. If the attitudes are undesirable they are to this extent a deficit in the child's start in school. The question of attitudes of children belongs to the home and is the shame or praise of the home until the child has been in school long enough to acquire other characteristics. In a very large sense the question of attitude is entirely for the consideration of the home and community; and in a very small way should the teacher be held responsible for the performances of children which are the outgrowth of their attitude. If a school system were to spend \$100,000 annually for public education it would cost \$10,000 to pay for the item of the attitudes of these children toward school, providing the combined judgments of 234 teachers are indicative. Schools and homes are planning well for great human purposes when they nurture right attitudes. Such work is not transitory nor does it end with the teaching process. Attitudes give direction to appreciations which carry deep service of training with pleasure long after the preparing of lessons is forgotten.

TO WHAT EXTENT IS CLASSROOM INSTRUCTION RECOGNIZED IN A TEACHER'S LOAD?

Find data in Tables I and II. In the first investigation 97 teachers ranked classroom instruction as a part of the load with a median of thirty-five per cent. With the second 140 teachers rated classroom instruction with a median of fifty per cent. In the public mind, the teacher's load begins when she is at school before her class and consists largely of hearing of recitations and assigning of lessons. To the teacher artist, many superintendents are prepared to say, that classwork is of greatest importance. The hearing of a recitation has received and will receive for some future time, an outstanding recognition in a teacher's work. Whether it is more important than the assigning of a lesson is of little consequence in this discussion. Both may be made outstanding units of labor or each may be made of very little consequence so far as the load is concerned. As this division of the teacher's load is emphasized many other elements are minimized; in proportion as a teacher makes a plan the outstanding part of her load other problems are reduced. The organization of instruction is an element of considerable consequence for every teacher. Daily plans can be arranged so that the class, at times, requires very little effort on the part of the teacher. Thoughtful, consecutive planning usually receives the same response from students; little or no planning usually receives little or no organization from the class and consequently calls for endless questioning from the teacher.

Many problems enter into classroom instruction. If the school is in a transition period or is being reorganized this question will vary considerably. If a teacher is working out some new method or conducting classes in a new subject the load in instruction will be increased.

The methods which are used in the classroom have a deciding influence on a teacher's load. It might be possible for much of the classroom work to be distributed so that a small per cent of the daily load is really located within the

classroom. If projects are the underlying basis of instruction much of the load is distributed through the day and no little of it taken from the teacher by individual effort of the pupils. Socialized recitation in general moves much of the labor of instruction from the teacher to the various members of the class. If supervised study is in vogue in the school system this has a contributing influence in the relief of the teacher's effort. It is interesting, however, to see that thirty-five per cent or fifty per cent of the teacher's effort is really used in classroom work. Eighty-five teachers of the 97 checking this group recognize the hearing of recitations as an important element in classroom instruction. The median per cent of load for teachers in this group was fifteen. In the second study 130 teachers out of 140 give a median of 25 per cent. A small number recognize the assignment of lessons as an element in the load. Seventy-nine teachers in the first study consider the assignment of lessons as a part of the load but the median, being five per cent, is lower than any other in this group. In the second study 120 check assignment of lessons as a part of the load but the median is still five per cent. No doubt, as a better method of instruction is understood the place of the assignment of lessons will assume a smaller part of a teacher's load.

It is quite encouraging to see 89 teachers rate the daily plans in organization of instruction with a median of ten per cent of load. In the second study 135 find the same median. To the public this should bring some new information. Very often the common opinion is expressed that the teacher's day is much shorter than that of the people in other work. The public in general has too little knowledge of a teacher's home duties in relation to this particular subject.

In this discussion an endeavor is made to emphasize the elements that cost in teacher energy and vitality. Is it fair to pay much for little in education? It is well for superintendents to count the cost in social service, in opportunities for boys and girls in teacher energy, when they request some of the common activities of school.

(To be Concluded)

Better Selection of Prospective Teachers

Frank M. Rich, Patterson, N. J.

(Concluded From October)

Some Prospects.

A very attractive field of investigation for prospective candidates of special ability is among the neighboring boy and girl scout leaders, social workers, private teachers and the like. Here one is likely to get in touch with a group of persons who have been attracted to class leadership for the love of it. A certain percentage of them will display qualities more than likely to succeed in a live, progressive school.

When the task of recruiting extrovert teachers of the highest type is conducted on a scale commensurate with its importance, we shall not stop short of a thorough combing of the industries for persons capable of becoming excellent leaders in school work. It is painfully evident that many persons from 20 to 25 or older come to the bitter realization that the occupation they selected, drifted into or submitted to at their parents' request was a mistake so far as their special interests and abilities are concerned. A few of these will prove to be teachers of the finest sort. Their talents should be impressed for the greater service, and, having known by personal experience something of hard, uncongenial toil, they are much more

kindly disposed toward the irksome features of teaching than some who complain of its hardships mainly because they have never known the feeling of strenuous labor in any other field. The hope of progress in education lies in a more enterprising search for candidates with gifts of leadership and enthusiasm, rather than in belated attempts to remake Tom, Dick and Harry, or Rosamond, Ethelyn and Guinevere, when they have negligible talent and no ideas—little, in fact to recommend them except the notion that it is a pleasant, easy life to order little tots around.

Personality vs. Scholastic Preparation.

In the teacher's equipment for service, temperament and personality are as significant as experience or academic advancement—some of us would say even more so—though they have never received much formal recognition hitherto. Personality is of unquestionable importance among the qualifications of a teacher, and the administration ought to be ready to sacrifice considerable, if necessary, to secure it. One of the necessary sacrifices in many cases will be long training. The idea of engaging teachers with less scholastic training than they have on the average at present will not go unchallenged

Assuming that all are agreed as to the facts in question—that there are certain natural qualities of personality essential to high success in teaching, and that we need such personalities in far greater proportion—from what sources can we recruit these forces to replace less gifted ones? Is there an adequate supply of jewels in the rough waiting to be discovered? If so, where?

One effective recruiting agency is the advisor of students in high school and college. Such an official, if clear in his own mind as to the kind of character that makes the best teacher, can have great influence in attracting that kind to the profession, and diverting the wrong kind into more suitable lines. In localities where there is not the regular machinery for vocational guidance, the superintendent or high school principal himself will find it profitable to protect the interests of the schools by doing a little exploring among the students of his acquaintance with an eye for prospective teachers of unusual promise. Now and then he can arrange for tryouts, as opportunity occurs, allowing the high school student to present topics or conduct discussions in the regular classes, or to substitute or assist informally, in the work of lower grades.

by many administrators who find the standards of scholarship already much too low among teachers in the field. Yet paradoxical as it may seem, a less rigid insistence upon diplomas and degrees at the outset might result in better scholarship in the long run. A school course is somewhat like a magazine subscription—an excellent thing to have in current issues, but a poor thing when it exists as back numbers laid away on the shelf.

When the choice of a beginner lies between a mediocre college graduate on the one hand, with little talent, little enthusiasm and little consciousness of his own superficiality and need, and on the other hand a keen candidate of less schooling but of compensating genius, enterprise and disposition to meet problems by purposeful study and research, there is little question as to who will be the better scholar and the more successful worker when they have had an opportunity to get under way. When in the second case we can match practical experience with men and affairs in the outside world, such as a salesman and mechanic commonly acquire, against the dawdling artificialities of the classroom instruction there is still greater advantage in favor of the outside candidate. Needless to say, we must give the schools adequate protection from tyros and ignoramuses however promising. What is not so commonly recognized, we should protect them also from hermit crabs and barnacles who wear a more or less impervious shell hidden in the moss of an ancient diploma.

The point we are insisting upon is that precedent and regulations need to be so modified that educational work can be made available to gifted persons recruited from the industries, even though there are gaps in their scholastic training, provided, of course, they are never undertaking to teach something they do not really know, and provided they are the kind that will not be content to remain at an inferior level of attainment.

Courses for Possible Teachers.

It ought to be practicable for a large system to offer vacation, evening and extension courses in education to a variety of workers, partly for the purpose of giving direct aid to those who are already doing something in social work or with scout or other teaching agencies as amateurs, and partly to develop a source of prospective teachers already educated in some degree for work in the schools. A portion of the students for such classes might be sought among the classes in the high school. Undoubtedly a great many persons who have essential qualifications for ideal teachers are lost to the profession because of the unnecessarily long period of non-productive preparation ordinarily demanded before one can begin teaching. The vigorous dynamic youth chafes at the idea of spending years in the classroom, grinding out a flood of words, which he is clever enough to see is mostly poppycock, when he can grow twice as fast in direct contact with a world of deeds.

Standard tests indicate a considerable number of fourteen-year-olds who do intelligence tests of superior adult grade with facility, while on the other hand, there are mature adults, and some of them teachers, who have difficulty with tests for fourteen-year-olds. Certainly on the score of natural intelligence these pupils do not need to wait before undertaking to conduct something practical. General information tests will also show the same result. These exceptional young people prove themselves far better informed on a wider range of subjects than some of the teachers in service. When it comes to the pragmatic test in actual charge of

a classroom, those who have had an opportunity to test certain children assigned to classes as substitutes in emergencies have observed with great astonishment that these little youngsters, teaching subjects and even handling rather serious problems of discipline, do the work with a tact and competence that put to shame the work of the poorer substitutes and even of teachers who have had the benefit of long training and experience. We are forced to conclude that a few, say the exceptional two or three per cent, could, if our system were a little more elastic, make a beginning of educational study and practice much earlier than is customary.

And what objection, except that of novelty, could be raised to the proposition to employ many desirable high school students and industrial workers on part time as assistants at small salaries, and work them into the system on trial, assigning them in outside hours to small classes requiring special tutoring prescribed by the regular teacher, to vacation classes on playgrounds, excursion classes, classes in gardening, shoe mending, book mending, soldering, and other simple metal work, electricity, amateur dramatics, community orchestras and choruses, and so on, and so on, depending upon the needs of the district and the special ability of the candidate? There is an unlimited amount of this work that needs to be done for the community benefit; it is within the ability of undergraduates of the right sort; and from keen candidates showing enterprise and genius in these activities a live administrator could recruit a kind of educator incomparably superior to the spineless floaters who drift through years and years of scholastic ritual and then are commissioned with the impossible task of showing the rest of the world how to live.

Married Women Available.

In our painstaking search for persons of exceptional native endowment, and our willingness to modify customs and precedents in order to attract and hold "born teachers", we must not forget married women. Fortunately many of the ill-considered regulations against the appointment of married women have been rescinded since the shortage that came during the war, and we have made available this source of culture, talent and experience.

Persons who are disposed to consider only the hole in the doughnut may dilate on the shortcomings of married teachers as a class, their divided interest, their narrowed opportunity for outside work, the interruptions in service due to child-birth, and so on; and in so far as they really interfere with efficiency, they must not be minimized; but after all, the married teachers are bound to include a certain number of persons whose service is eminently worth while. The ones we have in mind are those who have the perfect personality, clever mind, executive ability and the like, which constitute teaching genius. They can deliver the goods.

Therefore we will try to forgive little adjustments that may be necessary in the routine of administration, and as an offset to the interruptions of child-birth, we will place the growing dissatisfaction, hatefulness and ennui which are characteristic of long, uninterrupted service in the schoolroom, and the shadows that very naturally gather when the family life is one of increasing sorrow and loneliness. As the good book says, "Marriage is honorable in all," and there is little evidence to believe that the woman teacher is an exception to the rule.

To Summarize.

To recapitulate: better selection of teachers involves first a better recognition of the type of personality demanded for the superior class

leader; and second, a faith in personality that impels one to sacrifice secondary qualifications, if necessary, in order to secure this essential one. The best personality for teaching is not, as a rule, one of the shut in, classic, book-worm type, though these are frequently attracted to the teaching profession by its supposedly scholastic atmosphere. The best teaching personality is rather the expansive, free-and-easy, energetic type apparent in the successful actor, salesman or politician rather than the typical secretary, librarian or artist. Such a personality is distinguished by a more open, sociable disposition, more expressive face and gesture, more prolific activity, and greater enjoyment of new faces and new ways. The opposite introvert type have their place in the school system, but rather as clerical workers than as classroom instructors, and so far as possible, introverts should be transferred to this kind of work. The recruiting of a future supply of the extrovert type is a task that should be undertaken on a much more extensive scale than heretofore.

Our high school students should be carefully studied and the most promising given a try-out, to test and develop their ability to teach. Similarly, industry and social work of the community should be surveyed with the hope of culling here and there a person who could be trained for teaching. Training courses, especially adapted to such candidates, should be installed at convenient times and places, so that such persons can begin the study of educational methods without giving up their present occupations till they and the directors are satisfied as to their talent and interest. Part-time apprenticeship will be provided as a means of developing new candidates and new activities without expense to the efficiency of the rest of the system. Temporary sacrifices of the usual standards of age and academic training will be considered if personality, intelligence and progressive attitude promise to more than offset initial handicap. Some attention will be given to recruiting married candidates. On the whole, a great deal more will be done by executive wisdom and enterprise, and a great deal less by legislative prescription.

Many will see dangerous tendencies in all these doctrines, especially those advocating lower standards of maturity and preparation. They will insist that while permitting earlier choice of exceptional candidates here and there by a more flexible policy of appointments, we shall at the same time open the way for unscrupulous or incompetent persons to get in others of an altogether undesirable kind, and thereby work great harm to educational interests. And this is undoubtedly true. Liberty in incompetent hands is a very dangerous thing. History is one long struggle with that idea. But the advantage of liberty is that the unwise and the unscrupulous soon show themselves in their true light or given sufficient rope, they hang themselves. But if we limit the wise to prescriptions directed to the unwise, what hope is there of progress? The better rule from the standpoint of progress would seem to be to give directors all the liberty possible in accomplishing the task set for them; let them choose the most promising assistants that they can find; then punish their failures and reward their successes as emphatically as possible, and progress is assured. Exceptional successes can only be won by exceptional genius unfettered by restraint. The finest fruits of civilization will have to come from the buds of culture grafted on a sturdy native stock of enterprise and intelligence.



Interpreting Achievement in School in Terms of Intelligence

I. N. Madsen, State Normal School, Lewiston, Ida.



Many teachers during the early period of the testing movement felt that there was an injustice in having their efficiency judged solely on results obtained through an educational test. "My class is an unusually stupid one" they would say. Whereupon the supervisor with an incredulous smile and a shrug would point to a table showing the class achievement in the Courtis tests in arithmetic and say: "These scores are based on an objective test, your opinion of the mental capacity of the class is not." The teacher would meekly subside and accept the pronouncement with confidence in her judgment shaken. The development and use of intelligence tests provide a means for overcoming this difficulty. Their use indicates that the teachers must frequently have been right in their resentment. At least three important sources of error in interpreting the results of teaching in a given class in terms of educational tests alone can be shown.

In the first place, intelligence tests have shown that, in a given school system, the mental level of a whole class or school may be affected by the social or racial origin of the pupils. Terman and his co-workers in their work with the Stanford-Binet tests have convincingly shown that intelligence is affected by social status and race. Procter has shown similar results by means of group tests. The writer in an article in another journal¹ found significant differences in the intelligence of high school students belonging to different social groups. Since the population in any fairly large city tends to separate itself according to social status, it is obvious that different mental levels will be found in the schools patronized by the different groups. This was shown in the investigation by the writer, referred to above, for three high schools in a large city.

In the second place where it is in practice to divide the grade into three or more sections according to capacity, either on the basis of teachers' judgments or on the basis of tests, it is difficult to compare the efficiency of teaching by means of educational tests alone. The fact that these groups are recognized to be of different capacity would lead one to expect lower achievements from the inferior groups. But without intelligence tests, it is impossible to know whether each group has been brought to its normal level of efficiency. A third source of error in interpreting educational test results apart from intelligence, arises from differences in policies of promotion in different schools. These differences result in differences in age-grade status of pupils. Where a liberal policy is used, there will be less retardation; the pupils will be younger; and the achievement will be lower. Where a strict policy is used, there will be more retardation; the pupils will be older and, in the upper grades, more select since the

educational quotients are also low but compare more incapable will have been forced out of school; and the school achievement will be higher.

In order to interpret educational achievement in terms of intelligence, it is desirable to have age standards for educational tests as well as for intelligence tests. Having these, it is possible to obtain educational ages for each school subject. These in turn can be made to yield educational quotients analogous to intelligence quotients. The ratio of the educational quotient to the intelligence quotient will yield the achievement quotient. To illustrate this process: suppose a pupil has an intelligence quotient of .90, an educational quotient of .90 in arithmetic, and of 1.00 in reading. Using the intelligence quotient as a divisor, we obtain an achievement quotient in arithmetic of 1.00, and in reading of 1.11. Such a method has been proposed by Franzen² for analyzing the achievements of pupils and has been used by Monroe and Buckingham in the "Illinois Examination" consisting of an intelligence test, a silent reading test, and a test for the operations in arithmetic. However, the standards of most educational tests are in terms of grade rather than in terms of age. This makes it impracticable to follow the method suggested above unless age be considered. This can be done in comparing achievements of different classes of the same grade in the following manner: The median intelligence score of a class divided by the standard score yields a quotient of 1.00 if the class is exactly up to the standard. Similarly, the median scores in reading, arithmetic, spelling, etc., divided by the standard scores, yield quotients of 1.00 if the class is exactly up to the standards in these subjects. All of this, however, is in terms of grade. To obtain an age basis, find the median age of the class and divide by the age which represents "at-age". For example, in a fifth grade whose median age is 11 years 6 months, the divisor would be 11 years. This would yield a quotient of 1.05. Now use this as a divisor of the quotients obtained above and we obtain an intelligence quotient of .95 for the class. Similarly for reading, spelling, and arithmetic, we obtain educational quotients of .95. The achievement quotient (A. Q.) may now be obtained by dividing the educational quotients (E. Q.) by the intelligence quotients. In the above case, the achievement quotient would thus be 1.00. This method was used by the writer in making educational surveys during the school year 1920-21. The method is illustrated in the following tables.

Table I. shows the median age for each of six fifth grade classes as well as medians in the following tests: Haggerty intelligence examination, Monroe silent-reading tests, Monroe reasoning tests in arithmetic. Table II shows the

median age divided by the "at-age" for each class as well as the quotients obtained by dividing the class medians in each test by the standard scores for the fifth grade in these tests. Table III shows the intelligence quotients obtained as described above. Table IV. shows the achievement quotients for each class in reading and arithmetic.

TABLE I.
Showing Median Age and Median Scores in Intelligence, Reading and Arithmetic for Six Fifth Grade Classes.

Class	Age	Intelligence	Rate	Reading Comprehension	Principle	Answer
A	11-7	81	87	14	19	12
B	11-5	75	76	15	22	13
C	10-9	74	69	12	11	8
D	11-1	69	98	13	13	7
E	11-7	67	67	13	15	10
F	11-7	55	76	13	16	9.5
Stand.	11-0	78	89	19	17	9.7

TABLE II.
Showing Median Age Divided by the "At-Age" for the Grade and Median Scores Divided by the Standard Scores for the Grade.

Class	Age	Intelligence	Rate	Reading Comprehension	Principle	Answer
A	105	104	98	74	112	124
B	104	96	86	79	130	134
C	98	95	78	63	65	84
D	101	88	110	67	77	72
E	105	86	76	67	88	103
F	105	71	86	63	94	98

TABLE III.
Showing Intelligence Quotient and Educational Quotients for Each Class Reduced from a Grade to an Age Basis.

Class	Intelligence	Rate	Reading Comprehension	Principle	Answer
A	99	94	72	107	118
B	92	85	76	125	128
C	97	80	64	66	86
D	87	109	67	77	72
E	82	72	64	84	98
F	68	82	60	90	93

TABLE IV.
Showing Achievement Quotients for Each Class.

Class	Rate	Reading Comprehension	Principle	Answer
A	95	73	107	119
B	92	83	136	140
C	83	66	68	88
D	125	77	88	83
E	88	79	102	119
F	120	88	132	136

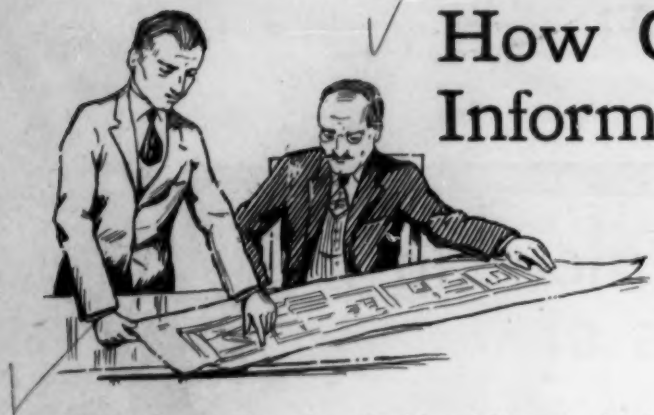
The advantage of interpreting school achievements by the method suggested above will be seen in studying the scores made by the different classes. Table I shows that the point scores made by class F in intelligence and in reading and arithmetic are below standard. One cannot, however, tell from this table whether the achievement of the class is on a level with its capacity. In Table II these scores are reduced to a percentage basis as described above as is the age of the class. Table III shows that the intelligence quotient for the class is below that of the other classes. The

(Concluded on Page 111)

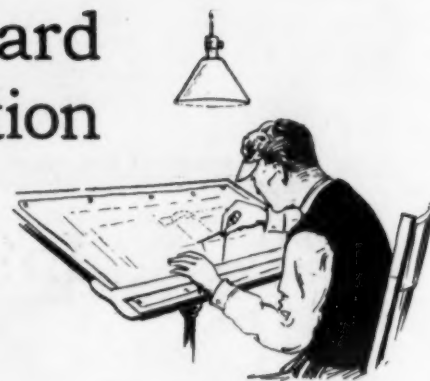
¹Journal of Educational Research, January, 1921.

²Teachers College Record, November, 1920.

How Can a School Board Inform Itself on Education Matters?



Inspector J. B. Edmonson, University of Michigan



How can a member of a school board become informed on educational needs and tendencies? I was asked this question by the president of a school board in a Michigan city of 3,000 population. In the course of our conversation, this president of the school board declared, "Our board of education meets once a month at about eight o'clock in the evening. The meeting opens with the reading of the minutes of the last session, and this results in much dispute and wrangling as to the form and correctness of certain resolutions, motions, and reports. Reports of committees are then given, but these seldom relate to anything involving a discussion of educational aims or policies. The superintendent's report is next on the program and usually deals with equipment needs, vacancies, and a few routine matters. After this, the board turns to the auditing and allowing of bills. About eleven o'clock Charlie announces, 'Boys, it's getting late. Let's cut her short and go home.' The board then adjourns."

The president of the board continued after this account by asking, "Are there not some possible ways for a board of education to get away from the kind of meeting given over to correcting the minutes, auditing petty bills and hearing reports on trivial matters?" He further declared, "I am not satisfied with the meetings of our board. I am a business man with many demands on my time, and I dislike the wasting of an evening in each month in transacting business of minor consequence. Is there not more important business for a board? I would like to know, as I want to do my share in building up the local school. Are there not possible ways for a board to contribute in a positive manner to the development of a good school in a community such as ours? I want advice."

I offered some advice, and later had an extended conference with the superintendent of schools. On return to my office, I prepared the following letter which I sent to the president of the board, inclosing a copy for the superintendent of schools:

"Ann Arbor, Michigan, June 11, 1921.

My dear Mr. B—

I have given considerable thought to the question raised by you as to the possible ways of increasing the effectiveness of the board of education of ——. After careful deliberation I wish to submit certain recommendations, which are based upon your very frank account of the meetings of your board of education which meetings, I may say, are much the same as those of the boards of education in other places of similar size.

You will observe that the purpose back of the recommendations is that of acquainting the members of the board with the facts concerning the local conditions, needs, and tendencies, and also of informing them concerning certain ideals, standards, and tendencies in other schools and in the educational world.

It is my opinion, based on scores of meetings with school boards, that many boards of education fail to contribute in an effective way to the

development of better schools, through a lack of understanding of local conditions in the light of the best educational practices and tendencies.

In brief, boards of education need to become better informed in order to serve the best educational interests of the communities. You will also observe that I have emphasized the responsibility which should be placed on the superintendent as the agent through which the board must depend for the securing of certain information relative to educational matters.

In my opinion, attention to the following recommendations would contribute something to an increase in the effectiveness of your board of education, and I wish to submit them as suggestions for your consideration.

First. That the superintendent be given sufficient help to prepare for each member of the board: 1, a copy of the minutes of each meeting of the board—this copy to be prepared and sent to each member within a few days following each meeting. This practice should reduce wasted time at meetings and make for efficiency; 2, a copy of the summaries of important reports

SILHOUETTES.

Frances Wright Turner.

When Grandma was a little girl

Oh, very long ago,

They had the queerest kind of things,

And this is how I know:

There's just the strangest picture,

It hangs on Grandma's wall

And it's black, clear black all over

With not any face at all.

'Tis a picture of my Grandma though,

When she was ten like me,

And when I stand and look at it

I wisht that I could see

Her face, and eyes, and nose, and mouth,

For then you see, I'd know

Just what my Grandma looked like

So many years ago.

But—dear me! she's just a shadow

Sitting in a high-backed chair;

Her skirts stick out like anything,

And there's one curl in her hair;

And she has on those frilly things,

She calls them pantalettes—

My! I like our pictures better

Than those queer, black silhouettes.

And then when Grandma went to school

They all stood up to spell;

And they got such funny, little cards

When they did their lessons well.

But when they missed a single word

They had to go below.

I guess if I had been there

I'd have been way down the row.

Yes, I'd been way at the bottom,

For though I'd try so hard

I'm sure 'twould take all winter long,

To earn one single card.

So I'm glad that I'm just ME—but—

When my spelling's hard to get,

I'd like to be a shadow girl,

Like Grandma's silhouette.

from committees of the board, especially on financial matters; 3, a copy of the monthly report of the superintendent of schools, as well as special reports.

Second. That each member of the board be placed on the subscription list of the American School Board Journal, at the expense of the board. This is the practice of many Michigan boards of education, and is in my opinion an excellent way for the members to become informed concerning tendencies and needs in schools.

Third. That the superintendent of schools be instructed to visit at least three neighboring schools each year, and report on the same to the board. These visits should be at the expense of the board and reports should be made to the board.

Fourth. That the superintendent be requested to give a report on the state and national educational meetings attended.

Fifth. That all members be urged to attend one or more educational meetings during the year, and that plans be made to send one member to the annual meeting of the State Association of Superintendents and School Board Members.

Sixth. That each member be requested to give one-half day during the year to the visiting of the local schools with the superintendent of schools.

Seventh. That the officers of the parent-teachers' club be invited to take an hour at one meeting each semester to discuss the needs of the school. This is an excellent way to encourage the parent-teachers' club, and is likely to eliminate the danger of friction.

Eighth. That the superintendent be instructed to submit occasional reports on the educational progress in the different school studies as measured by certain standardized educational tests.

Ninth. That in the regular order of business, as adopted by the board, the report of the superintendent be placed after the roll call and the reading of the minutes.

I am taking the liberty of enclosing a copy of this letter to your superintendent of schools. I shall be glad to have your comments on the suggestions as offered, and shall be much interested in any results secured.

Very respectfully yours,

J. B. Edmondson."

The suggestions given in the above letter have been gained through many conversations with such school administrators as recognize the importance of helping a school board to become informed on educational problems and tendencies. It is my judgment that a school board by following some such policies as suggested can offer stimulating criticisms and also act intelligently on questions of educational policy.

The Only Original.

Teacher—"John, can you tell me what the first person singular is called?"

John (after much thought)—"Adam."

Who is Executive — Board or Superintendent?

A problem in school administration has arisen in Duluth, Minn. Or rather, that city has been asked to solve the problem of assigning authority in school administration. Who shall be the recognized executive in the school system, the board or the superintendent? That is the question upon which answer is sought.

The Taxpayers' League in the above named city contends that the school board is now usurping a function which belongs to the superintendent. It holds that at present the latter is a mere figure head.

A report worked out with great care has been submitted, accompanied by two charts showing the present plan and the contemplated plan, in which the league contends that the function of the school board should be that of a policy making body and that the superintendent should be vested with full executive authority.

While the report is the expression of the Taxpayers' League, of which Robert M. Goodrich is the executive secretary, the same was compiled with the assistance of the St. Paul Bureau of Municipal Research, in which C. P. Herbst is the expert on schools. The report reads as follows:

The Board of Education.

Nine electors are chosen by the voters of Duluth to govern their schools in an effective yet economical manner. The Board of Education is entrusted with the responsible task of preparing the children of Duluth for healthy, intelligent citizenship.

A school plant valued at over \$4,800,000 has been gradually acquired to take care of the 19,000 school children.

Over \$1,500,000 was expended during the school year 1920-21 to furnish instruction, keep the plant in good condition, and provide for interest and sinking fund charges on bonds.

A good organization is required to spend this huge sum of money in the best possible manner and to keep the properties in usable condition.

The function of any board of education is to act as a policy making and inspectorial body. Its legislative function consists of dealing with the formation of general policies to be followed. With the power to outline policies goes the right to see that they are carried out and that their purposes are accomplished.

Too often boards do not confine themselves to the legislative and inspectorial functions; they also attempt to carry out their own decisions. The board of education of Duluth is no exception. Good practice demands that a body

such as a board of education limit itself to promulgating policies and leave administration to trained executives.

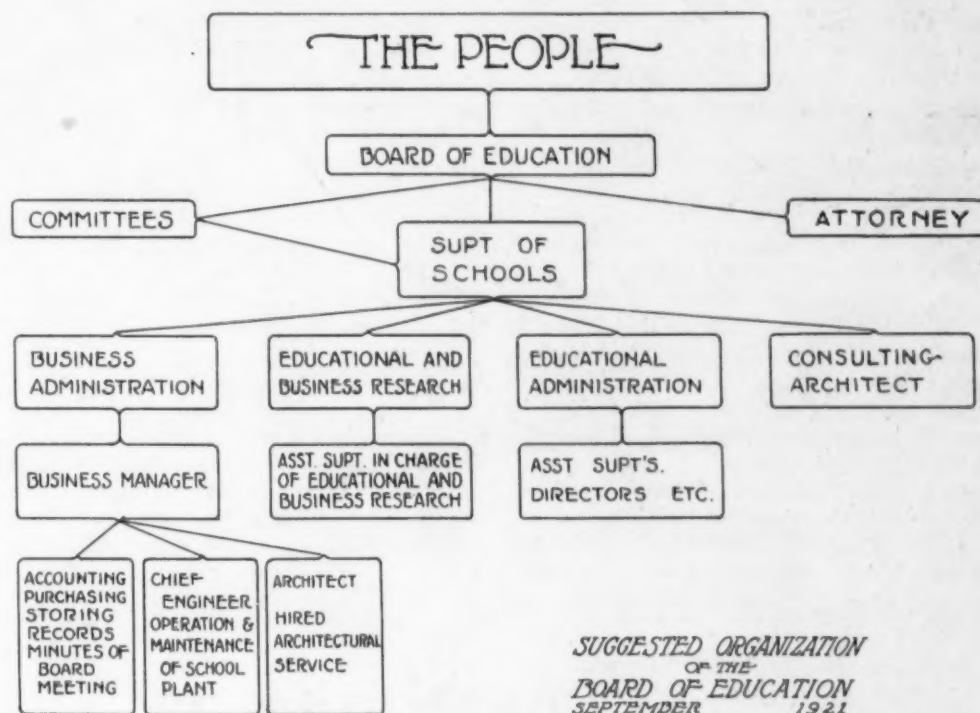
Committees of the Board.

The board works through three standing committees:

1. Administration and Finance.
2. Schools.
3. Maintenance of Buildings and Grounds.

While these committees are legislative in their character, yet they do tend toward becoming administrative. Details of administration are taken up by the committees—details that could much better be taken care of by the trained officers without the interference of the committee members. The question arises as to whether these committees might not be abolished and special committees be appointed to consider problems as they arise rather than referring these problems to the standing committees.

Standing committees tend to cause a board to become a rubber-stamping body. Many matters of importance are submitted to the board by committees and are passed without the members, with the exception of those to whose committee the subject was referred, having any more than a perfunctory knowledge of the matter.



SUGGESTED ORGANIZATION
OF THE
BOARD OF EDUCATION
SEPTEMBER 1921

A Three Headed Organization.

Each of the three committees has an administrative officer directly under it, as is shown by the chart on the following page. While the most harmonious relation exists between the three officers, the superintendent, the chief engineer, and the clerk—yet it remains that there is no one executive head of the school system.

The education of the children of Duluth is the sole aim of the Board of Education. All other business transacted by the boards—maintaining and operating the buildings, keeping financial records, purchasing supplies—is subordinate to this prime function of furnishing education, and is due to the fact that all such material adjuncts are necessary in the process of furnishing education.

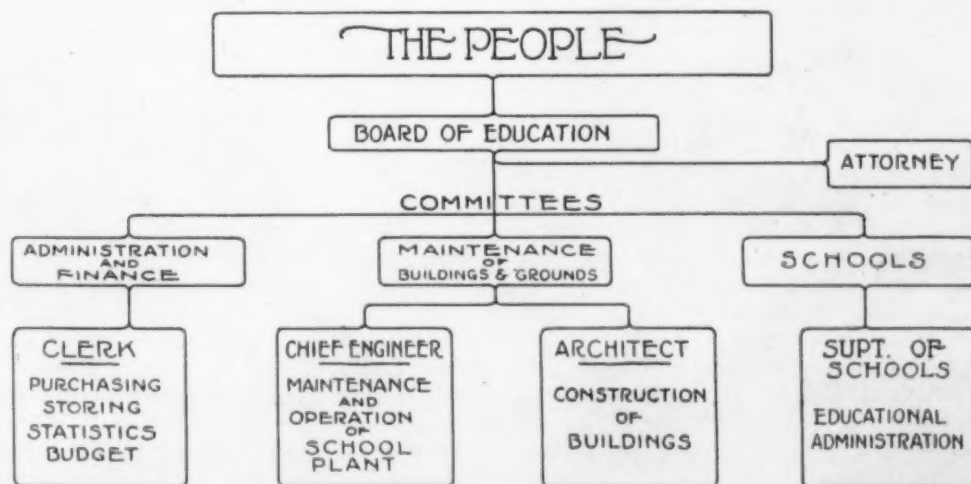
The superintendent of schools is responsible for the educational results of the public schools and inasmuch as he has this responsibility, he should be in charge of all the means and instruments for bringing education and the children of Duluth together. It is therefore suggested that the superintendent be made the executive head of the school system. This recommendation is in accordance with the expressed opinion of the National Education Association and the practice in progressive cities.

The day of the one-sided superintendent, who knows the problems of schooling only from the educational point of view, is passing and in his stead is coming the business-man superintendent, qualified both as an educator and business executive. Duluth is fortunate in having secured the latter type.

The Business Department.

The business activities of the public schools undoubtedly should be correlated under one head, directly responsible to the superintendent. It is suggested that a business manager, possibly called an assistant superintendent in charge of business, be appointed by and be subject to the control of the superintendent.

Many minor details of administration arising within the business department of the schools are necessarily referred to an immediate superior, who is in a position to make prompt decision in order that action may not be delayed. While these problems require the decision of a department head yet they are not of sufficient



PRESENT ORGANIZATION OF BOARD OF EDUCATION
SEPTEMBER 1921

importance to require the attention of the superintendent. These matters rather would be disposed of by the business manager. Policies of the business organization might be formulated by the business manager through his direct touch with the problems of administration. These, however, would not be put into effect without the approval of the superintendent.

It is not contemplated that a new position be created because of this recommendation, but that a reorganization be effected within the present staff.

A chart of the proposed organization is given on this page.

The Business Manager.

The business manager would be responsible for the purchasing of supplies and for the proper receipt, storing, and issuance of such supplies. It would be the duty of this officer to buy supplies under standard specifications, and in such reasonable quantities as would secure the lowest possible price. It would further be his duty to keep proper records of all financial transactions of the board.

At the present time supplies are being delivered to the schools every two weeks from the store room. Experience in other cities has demonstrated that a monthly delivery is sufficient to take adequate care of the needs in the

schools. A monthly delivery naturally requires more planning on the part of the principal in requisitioning supplies for her school. The saving that might be effected by decreasing the delivery cost and by reducing records warrants the recommendation that deliveries be made not more often than once a month.

The chief engineer would report to the business manager. A clerk in the business manager's office might be assigned the task of keeping the minutes of the board and committees.

The chief engineer, under the supervision of the business manager, would be in charge of the operation and maintenance of the school plant. He would hire and discharge, without interference from anyone, janitors, engineers, cleaners, mechanics, laborers, etc.

The architect would report directly to the business manager who would follow the progress of construction work.

Assistant Superintendent in Charge of Research.

Should a research department be established, it is suggested that it concern itself with business as well as educational problems. At the request of the superintendent, the assistant superintendent in charge of educational and business research would make studies of the business methods pursued by the officers under the business administration and from his stud-

ies and research, make recommendations looking toward the improvement of the work. Further, he would keep statistics and assist the superintendent in preparing such reports and publications as are necessary and in determining the location of new school buildings.

The Consulting Architect.

It is suggested that a consulting architect be secured to assist the superintendent in devising his building program and to confer with the architect concerning the plans and specifications of schools buildings with a view not only of securing as economical buildings as possible but also of fitting the plans to the educational needs that the buildings are to supply.

School architecture is so specialized that it required an especially trained architect to fit the building to the educational needs for which the structure is being erected. A few of our larger cities, notably Detroit, have realized this condition and have employed full-time research architects to study their problems, to formulate rules concerning the size of classrooms, halls, etc., and to standardize buildings. Usually practicing architects have neither the time nor money, even if they have the inclination, to make intensive studies of these problems and to examine school buildings in numerous other cities.

The Rating of Teachers

A Study by a Committee of Southern Educators

The first definite attempt to reach a scientific estimate of the relative values of the various qualities of merit in teachers was made by E. C. Elliott, then of the University of Wisconsin, in 1910. Elliott suggested seven points on which rating officials were to base their estimates, namely: physical, moral, executive, professional, projective, and social qualities and the results of teaching. Numerical values were assigned to the several qualities.

In 1910, W. C. Ruediger of Washington University and G. D. Strayer of Columbia University undertook to answer the following questions: What are the fundamental qualities that should receive scientific and administrative attention? What is their relative importance? How may they be determined? In answering these questions, the following points were selected on which the rating official should base his decision: educational qualifications, number of years of teaching experience, general teaching merit, health, initiative, personality, teaching skill, ability to carry out suggestions, accord between teacher and pupil, progressive scholarship, and social factors outside the classroom.

In 1913, C. C. Hughes, superintendent of the Sacramento city schools, made a rating scheme the basis of his administrative policy regarding the employment and retention of teachers. He enlarged the schemes of Elliott and Ruediger and Strayer by adding more items on which teachers were to be rated.

The Boyce Scale—A Type.

In 1915, A. C. Boyce of the University of Chicago, after a number of years of study on the subject of measuring the efficiency of teachers, submitted a teacher-rating score embracing 45 different items grouped under five main divisions, as follows: personal equipment, social and professional equipment, school management, technique of teaching, and results. The Boyce score, like those mentioned above, consists of a list of desirable qualities to which the supervisor is to assign a value, and is typical of a number of scores since developed based on the same idea. In using the Boyce score, the teacher is rated as very poor, poor, medium,

Note.—This paper is a report on the Rating of Teachers prepared by a Committee consisting of Miss Vera English, Commerce, Texas; Bert R. Smith, Clinton, Ky.; Joseph E. Gibson, superintendent of schools, McComb, Miss.; W. A. Bass, Covington, Tenn.; and J. O. Donaldson, superintendent of schools, Amory, Miss. The report was submitted to a summer school class in Supervision of Instruction in Elementary Schools at Peabody College for Teachers, Dr. Thomas Alexander, instructor.

good, or excellent in respect to each quality listed. Boyce desired to accomplish three definite things by the use of his score: 1, vocational guidance of teachers; 2, improvement of teachers in service; and, 3, determination of promotion and dismissal. He hoped by achieving this aim to eliminate the rating of teachers on the basis of snap judgment, personal preference, comparison, and political pull. The Boyce scale is the one more generally in use today than any other. A slightly revised form of the Boyce scale may be obtained from the Webster Publishing Co., Webster Grove, Missouri.

Since 1915 many variations of the type of score card mentioned above have been in use, some of which are the scale of the Evanston, Ill., Committee of Teachers, 1918; the scale of W. F. Clark of Minot, S. D., 1918; and that of Morton, Landsittel, and Twiss devised for rating high school teachers in Ohio.

This type of score is of use to the administrator in rating and comparing teachers rather than to the teacher as a means of self improvement.

The Rugg Score.

The first score card examined which differs materially from the Boyce type is that of Dr. H. O. Rugg, now of the Lincoln School, Columbia University, which was published in the Elementary School Journal of May, 1920. The Rugg, card, form A, consists of a series of questions regarding the extent to which a teacher possesses certain qualities or has carried out certain activities. Fundamentally, it is intended as a means of self improvement through self rating, it being considered that answering specific questions enables the teacher to achieve a more definite self analysis. A list of specific questions is, also, of more value to the teacher and the supervisor as a basis of arriving at a common understanding. Rugg arranges his questions under five heads: skill in teaching,

skill in mechanics of managing a class, teamwork qualities, qualities of growth and keeping up-to-date, and personal and social qualities. Instead of the numerical valuation of Elliott or the five group classification of Boyce, Rugg suggests a classification as low, medium, or high as an answer to each question asked.

Form B of the Rugg score is a device for assigning a numerical rating to teachers based on a man-to-man comparison, such as was used successfully in rating officers in the army during the late war. This committee considers it the best scheme yet devised for a comparative rating of teachers and it will be given in detail at the close of this report.

The Connor Scheme.

Another scheme for rating teachers quite different from any yet considered is that developed by W. L. Connor and his teachers at Republic, Mich. In 1916, the school authorities of Republic decided to take the efficiency of teachers definitely into account in fixing salaries. The first scheme used at Republic was composed of material from the work of Elliott, Boyce, and Ruediger and Strayer. This scheme proved unsatisfactory to a number of the teachers and to Connor, himself. They concluded that many items were being considered that bore slight, if any, relation to efficient teaching. Connor curiously states that in his judgment a perfectly-groomed teacher of perfect physical proportions, working with perfectly graded children in a perfect physical environment *may* and often *does* use perfectly good methods in a perfectly futile way.

After reaching this conclusion, Connor and his teachers adopted the following principles as guides in their further study of a rating scheme: 1, Teaching, not teachers, should be rated; 2, Teaching is rated in terms of the results only; 3, Results may be classified as inferior, below average, average, above average, or superior, only with reference to the amount of improvement made and the ability of the particular group of boys and girls to improve. By the Connor scheme the results of teaching are grouped under the following heads: thinking, knowledge and skill, initiative in socially

significant situations, morale, emotional reaction, ethical self control in situations socially significant, and deportment. These terms are defined and the complete scheme is given in detail in the Journal of Educational Research for May, 1920. This committee agrees that results should constitute an important factor in determining a teacher's standing after enough time has elapsed for results to be ascertained, and in so far as they can be measured.

From the standpoint of the supervisor, the Connor scheme has two fundamental faults: 1, If the teacher of the perfect attributes listed above should fail to get results, something beyond her control would evidently be interfering. The teacher should not receive less pay or a lower rating because of circumstances over which she has no control. The supervisor and the superintendent should rather try to locate the trouble; 2, For the purposes of supervision, it is important that there be a basis for estimating a teacher's fitness and the efficiency of her teaching before she has been at work long enough for results to be apparent. Many mistakes may be made and bad habits formed that might be avoided if rating is delayed until results only can be measured. It is the supervisor's business to help teachers see their strong points and their weak points, and to teach them what good teaching is as early as possible after their entry into the service.

Conclusions.

This committee is convinced that, although defects are to be found in every score card, in order to secure the best results in rating teachers, some mechanical device must be used.

Some particular item on which an estimate is based may add or detract little from the summation score, yet the absence of the quality indicated in such an item may disqualify a teacher who, otherwise, would receive a high score. Not all desirable qualities or activities are included in any score. No score card has as yet been made satisfactorily objective. The one submitted here is objective only to the extent to which standardized tests are used in measuring the results of teaching.

In formulating the proposed score card the committee has kept in mind the following purposes: 1, To aid teachers in discovering their own strong points and weaknesses, and to remedy existing defects in their work; and, 2, To determine the quality of teaching as a basis of selecting those who deserve promotion, those who are to be retained without promotion, and those who are not to be retained in the service. (Findings of the Evanston, Ill., Committee of Teachers, American School Board Journal, March 1918.) The committee has endeavored to include in its proposed score card the desirable qualities listed by Boyce, has adopted the question form and the three group classification used by Rugg, and has assigned a greater value in the final score to results of teaching than has been found assigned elsewhere except in the Connor score card. The items of the score are grouped under three main heads rather than under five or more because it is believed the three groups here given are of more nearly equal value in arriving at a numerical rating, as suggested in form B, than the five groups of Rugg and Boyce or the seven groups of Connor.

The proposed score follows:

SCORE CARD FOR RATING TEACHERS. Form A.

Name

I. Personal and Social Qualities.

A. Personal.

Low Medium High

To what extent—

1. Does she recognize the importance of neatness in dress and personal appearance?
2. Is she sensitive to social proprieties?

3. Is she open-minded—teachable, not self-sufficient.
4. Is she effectively aggressive in conversation and conference?
5. Is she tactful in dealing with pupils, colleagues, and patrons?
6. Does she eventuate—carry out projects which she starts?
7. Does she refrain from gossip?
8. Does she allow social or other outside interests to impair her value to the school?
9. Does she show self control?
10. Does she shoulder responsibility for her own acts?
11. Does she show initiative? (In suggesting plans for school improvement, trying new devices, asking for suggestions, taking hold in difficult situations.)
12. Does she respond to suggestions?
13. Is she possessed of native intelligence as indicated by the Otis Group Test?

B. Social and professional.

To what extent—

14. Does she read new professional literature?
15. Does she take extension courses or attend summer sessions?
16. Does she co-operate with other teachers in school activities? (Committee work, school improvement.)
17. Does she co-operate in community activities outside the school?
18. Is she disposed to be loyal to the administration and other teachers?
19. Does she show a readiness to advise and help pupils? (By acquainting herself with home conditions, giving them extra time.)
20. Is she prompt and accurate in making reports?
21. Do pupils come voluntarily to her for advice and conference?
22. Does she meet people easily?
23. Does she use good English?

II. Classroom Activities.

A. Health Factors.

Low Medium High

To what extent—

1. Does she attend to the details of heat, light, and ventilation?
 2. Does she choose wisely physical exercises and games?
 3. Does she follow up physical examinations?
- ###### B. Management.
- To what extent—
4. Do good order and discipline inhere in the work? (Not maintained by compulsion or suppression.)
 5. Does she keep her room neat?
 6. Is routine, as passing material, moving to the blackboard, etc., economically and systematically organized?

C. Aims of Teaching.

To what extent—

7. Are her aims of teaching clearly defined?
8. Does she plan her lessons, daily, weekly, and by the term, specifically to carry these out?
9. Does she distinguish clearly formal skill, information, and problem solving as proper outcomes from her classwork?

D. Method.

To what extent—

10. Does she bear in mind the psychological development of her pupils?
11. Does she successfully correlate the work in different subjects? (Do language and spelling function in the study of geography and history?)
12. Does she use large units of study—projects and type studies?
13. Are lessons well related to previous ones?
14. Do lessons show the use of material in the solution of present or future problems?

E. Devices.

To what extent—

15. Does she make use of economical, timed, drill devices? (Courtis Practice Exercises, etc.)
16. Does she endeavor to discover the pupils' difficulties by keeping a record of the errors of individuals and studying these, and by the use of diagnostic tests?
17. Does she use sufficiently varied devices to appeal to all her pupils?

18. Does she keep devices properly subordinated to the problem in hand?

F. Technique.

To what extent—

19. Does she properly subordinate drill to exposition? (Keep a proper balance between drill and development.)
20. Does she provide for individual differences in pupils?
21. Are her assignments clear and definite?
22. Does she develop initiative on the part of her pupils? (In causing them to ask relevant questions, volunteer relevant information, purpose relevant problems.)
23. Does a large percentage of the pupils take part in the recitation?
24. Does she use suggestions of pupils to advantage?
25. Does she keep class discussions within the pupils' comprehension?
26. Does she analyze the results of standard tests so as to use them in improving the work of individual pupils?

III. Results of Teaching.

A. Advancement in school subjects.

Low Medium High

To what extent have the pupils made standard progress for their grade as shown by:

1. Woody-McCall Test in Mixed Fundamentals of Arithmetic, Form I; or Courtis Standard Research Tests in Arithmetic?
2. Monroe's Standardized Reasoning Tests in Arithmetic?
3. The Buckingham Extension of the Ayres Spelling Scale?
4. Monroe's Standardized Silent Reading Tests, or Courtis' Silent Reading Tests?
5. Thorndike's Scale for Handwriting of Children in Grades 5 to 8, or The Ayres Handwriting Scale?
6. The Nassau County Supplement to the Hillegas Composition Scale?
7. Examinations in subjects not covered by the tests?

B. Desirable Traits of Character.

To what extent—

8. Have the pupils developed initiative as shown by class discussions, direction of their own work, suggesting games, etc.?
9. Have the pupils improved in self-reliance as shown by willingness to undertake new and difficult tasks?
10. Have the pupils improved in voluntary conformity to school regulations?
11. Have the pupils developed respect for the personal and property rights of others?
12. Have the pupils improved in good sportsmanship? (Honesty and fair dealing.)

C. Health.

To what extent has the teacher caused improvement in the pupils' health by:

13. Administering corrective exercises?
14. Overcoming malnutrition? (Under weight.)
15. Causing the correction of defects shown by physical examination—adenoids, bad tonsils, bad teeth, etc.?

Form B.

As has been mentioned above, Form B of the Rugg score card is an adaptation to teacher rating of the scheme used for rating officers in the army. This scheme is based on a man-to-man comparison in which certain individuals are taken as standards. Teachers are to be classified in five groups and assigned a numerical score according to their resemblance to the five teachers taken as standards for the five divisions of the score. Considering each of the three main divisions of Form A separately, the very best teacher one knows and can now use for the purposes of comparison is selected as the highest standard, the poorest teacher as lowest standard, a teacher half way between best and poorest as average, a teacher half way between best and average as the above average standard, and a teacher half way between average and lowest as the below average standard. Such groups of teachers are selected for each of the three main divisions of Form A of the score card. In each division a value of 38 is assigned to the best teacher, 32 to the next best, and so

RATING BY DIRECT COMPARISON

FORM B—The Rating Scale: Containing the names of typical teachers who can be compared with the teacher to be rated.
(Primarily for Principals and Superintendents in the Rating of Teachers)

I. Skill in Teaching		II. Skill in the Mechanics of Managing a Class		III. Team-Work Qualities		IV. Qualities of Growth and Keeping Up-to-Date		V. Personal and Social Qualities	
Best Teacher... 38		Best Teacher... 38		Best Teacher... 38		Best Teacher... 38		Best Teacher... 38	
Better than Average... 30		Better than Average... 30		Better than Average... 30		Better than Average... 30		Better than Average... 30	
Average... 22		Average... 22		Average... 22		Average... 22		Average... 22	
Poorer than Average... 14		Poorer than Average... 14		Poorer than Average... 14		Poorer than Average... 14		Poorer than Average... 14	
Poorest Teacher... 6		Poorest Teacher... 6		Poorest Teacher... 6		Poorest Teacher... 6		Poorest Teacher... 6	
Summary Numerical Rating		Summary Numerical Rating		Summary Numerical Rating		Summary Numerical Rating		Summary Numerical Rating	

Form B, the Rugg Self-Rating Scale

on to eight for the poorest. For the use of those who care to give teachers a numerical rating, the committee recommends this scheme. In using the Rugg Form B with this score card, teachers are rated under three main heads instead of five*.

It will be seen that the highest possible score for a teacher who might be best in all divisions of Form A is 118, and the lowest possible score 24.

The tests named first in III have been chosen because they have been used in the South and Dr. S. C. Garrison has furnished percentile tables which apply to them and are included in this report.

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Percentile tables for various tests as determined for Southern children.

Woody-McCall Arithmetic.

	VIII	VII	VI	V	IV
High	34	34	34	31	27
90	31.7	30.2	29.3	25.5	20
80	30.6	29.2	27.7	23.4	17.6
70	30	28.9	26.5	21.7	15.7
60	29.3	28.1	25	19.4	13.8
50	28.3	26.7	22.7	17.9	11.9
40	26.9	23	20.4	15.9	10.1
30	25.1	23.4	18.2	12.8	8.4
20	23.4	21.3	16.2	10.8	6.6
10	20.5	18.4	14.36	8.5	4.2
Low	7	8	5	2	0

	VIII	VII	VI	V	IV
High	8.5	8.5	8.5	7.6	6.5
90	6.2	6.2	5.8	5	4.2
80	5.4	5.2	4.9	4.5	3.6
70	4.9	4.7	4.3	4.1	3.2
60	4.4	4.2	3.8	3.4	2.9
50	4.1	3.0	3.4	2.9	2.6
40	3.7	3.5	2.9	2.5	2.3
30	3.5	3	2.5	2.1	1.8
20	2.8	2.4	1.9	1.6	1
10	2.8	1.7	.9	.6	.4
Low	0	0	0	0	0

Nassau County Supplement to Hillegas Composition.

	VIII	VII	VI	V	IV
High	8.5	8.5	8.5	7.6	6.5
90	6.2	6.2	5.8	5	4.2
80	5.4	5.2	4.9	4.5	3.6
70	4.9	4.7	4.3	4.1	3.2
60	4.4	4.2	3.8	3.4	2.9
50	4.1	3.0	3.4	2.9	2.6
40	3.7	3.5	2.9	2.5	2.3
30	3.5	3	2.5	2.1	1.8
20	2.8	2.4	1.9	1.6	1
10	2.8	1.7	.9	.6	.4
Low	0	0	0	0	0

Percentile Tables of Southern Children in Monroe Reasoning Tests.

	VIII	VII	VI	V	IV
High	31	29	29	31	31
95	25.6	26.2	22.7	28.1	20.3
90	25.5	24.1	20.8	25.7	18.1
80	21	22	18.5	22.8	14.8
70	18.8	20.6	16.8	20.6	12.5
60	17.1	19.4	15.3	18.4	10.9
50	15.8	17.6	13.6	17.2	9.7
40	13.9	15.5	11.7	15.5	8.2
30	11.9	12.9	9.3	13.6	6.3
20	9.4	9.5	6	11.2	4
10	5.8	5.6	2.9	7.1	1.9
5	3.9	3.9	1.2	4.4	1
Low	0	0	0	0	0

Monroe Silent Reading Test.

	VIII	VII	VI	V	IV
High	47	47	47	41	35
90	38.8	33.3	35	22.5	17.5
80	35.2	27.9	25.9	19.3	15.7
70	32.6	25	24.1	16.9	13.5
60	30.2	22.2	19.7	15.4	10.9
50	27.9	19.4	18.2	13.5	9.2
40	25.5	16.9	16	12.9	7.1
30	22.7	15.7	13.6	12	5.5
20	18.9	13.1	10.7	9.3	4.3
10	15.2	9.6	7.1	4.9	3.2
Low	0	0	0	0	0

Handwriting (Thorndike) Speed.

	VIII	VII	VI	V	IV
High	130	140	110	120	100
90	99.5	97	88.4	85.7	67.3
80	90.4	88.3	78.5	77.2	60.5
70	85	82.6	71.3	69.8	55.6
60	80.1	77.5	66.3	65.6	50.9
50	76.4	73.1	61.4	61.3	48.5
40	72.7	68.4	57.1	56.1	46.1
30	67.9	63.4	52.9	45.8	43.7
20	62.2	67.5	39.6	41.6	41.3
10	52.4	50.1	33.5	33.2	34.3
Low	10	31	21	26	15

Handwriting (Thorndike) Quality.

	VIII	VII	VI	V	IV
High	18	18	18	16	17
90	16.3	15.7	14.7	12.1	9.7
80	15.5	14.2	12.9	10.7	8.8
70	14.4	13.2	12.4	9.9	8.4
60	13.2	12.1	11.7	9.6	8
50	21.4	11.5	10.9	9.2	7.7

40	11.8	10.6	9.9	8.8	7.5
30	11.2	9.7	9.3	8.5	7.2
20	10.3	9.2	8.5	8.1	7.1
10	8	8.5	8.2	7.5	6
Low	5	4	4	4	4

	VIII	VII	VI	V	IV
High	19	29	27	29	23
95	16.7	25.1	21.9	21.3	15.9
90	14.9	20.7	19.9	19.3	13.9
80	12.8	18.9	16.3	15.7	11.1
70	11	16.6	13.5	13.1	8.8
60	9.5	15.1	11.8	11.6	7.7
50	8.2	13.6	10.4	10.3	66.6

Correct Answer.

SCHOOL ADMINISTRATION NOTES

—Cranston, R. I. Part-time classes have been formed in the schools because of the increased number of pupils and the shortage of accommodations. The enrollment at the opening of the fall term was 5,250 pupils, or an increase of 490 over that of 1920.

—Enrollment figures for the schools of Indianapolis, Ind., show that there were 36,303 grade pupils and 7,209 high school students. This is a gain of 351 for the grade schools and 802 for the high schools over the figures for last year. Both the Manual Training High School and the Arsenal Technical High School had gains of several hundred students, while the Shortridge experienced a decrease in enrollment.

—Rochester, N. Y. Secret societies have been prohibited in the high school. Students who disobey the rule are subject to a year's suspension.

—Under the new Bing compulsory school law which went into effect in the state of Ohio recently, no excuses except illness, are recognized for failure to attend school. Under the law, juveniles from 16 to 18 years must be in regular attendance. No excuses are granted for work at home, on the farm or for temporary employment.

—Paragould, Ark. The board has adopted rules prohibiting rouge and lipsticks, fancy hair dressing, French heels, fancy shoes and hosiery, and expensive dress. Girl students may wear simple dresses of modest length, middies or plain waists with woolen or cotton skirts, or simple linen or gingham dresses.

—St. Joseph, Mo. The school board has adopted a resolution recommending the elimination of overdressing in the high schools by teachers and students. The board condemns the wearing of expensive apparel, jewelry, silk hosiery and high heels and asks the cooperation of the parents in encouraging a simple and sensible school costume. The board members held that while they may not regulate the dress of the girl students, they may help in creating sentiment against expensive apparel.

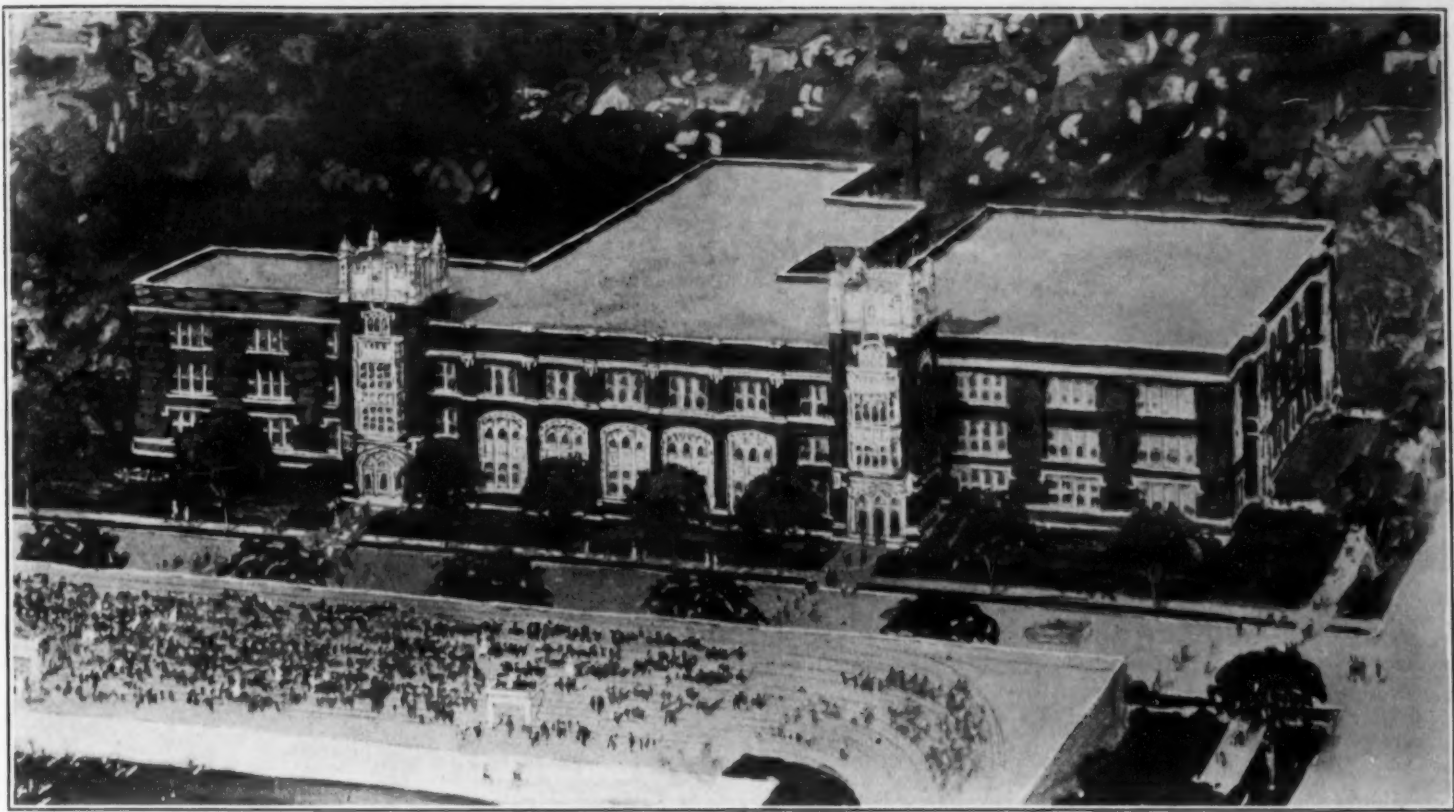
—Prescott, Ariz. The board has adopted an antihazing rule, with particular reference to local conditions.

—Akron, O. The board has adopted a recommendation of Supt. C. R. Reed that a tuition fee of \$1.25 a month be charged persons over 21 who take night school work.

—St. Joseph, Mo. The board has rescinded its former action, providing for the inauguration of Bible reading and singing in the schools. The order was rescinded following a pronounced opposition of several patrons.

—St. Albans, Vt. Under the direction of Supt. George S. Wright, a new system of marking has been introduced in the schools. The new system indicates the quality of work done by using terms in common use, measuring the quality of the work as well as the quantity.

—Wakefield, Mass. Supervised study for children who have difficulty in attaining the proper methods of study, and who lack ability to concentrate, has been introduced in the high school.



WEST JUNIOR HIGH SCHOOL, ROCKFORD, ILL.
Peterson & Johnson, Architects.

Rockford, Illinois, Building Program

E. E. Lewis, Superintendent of Schools, Rockford, Ill.

The board of education of Rockford, Illinois, on December 14, 1920, adopted a \$3,000,000, five-year school building program. A bond issue of \$1,500,000 was carried on this date by a vote of about three to one. These bonds were to be issued serially, \$300,000 each year for five years, and were to be paid serially beginning one year after issuance and continuing for twenty years. By the issuance of bonds the board of education was given a credit which they might use each year for five years to supplement the revenue annually derived by taxation for building purposes. Over \$300,000 is available each year from taxes which may be used for new buildings. In this manner it was made possible for the board of education to plan a five-year building program and, at the same time, to plan with great definiteness the means and rate of payment. This is one of the most commendable features of the entire program and a feature that we believe should be more universally adopted.

The board of education selected the firm of Peterson and Johnson, architects, of Rockford, Illinois, and instructed them to prepare the necessary plans. Mr. E. E. Lewis, superintendent of schools of Rockford, accompanied by Messrs. Peterson and Johnson, architects, and Mr. Brogunier, superintendent of physical properties, visited St. Louis, Chicago, Springfield, Detroit and Jackson, Michigan, on a tour of investigation and received a great many suggestions of what not to do as well as certain valuable ideas of what to do. The research architectural department of the Detroit schools was a veritable gold mine. The criticisms offered the architects by Mr. E. E. Lewis, superintendent of schools of Rockford, and his staff have been very helpful to the architects in designing buildings to fit the educational system. To avoid constructional blunders that seriously affect the administration and management of the school building, it is necessary for the superintendent of schools and his staff to be reasonably familiar with the best in theory and practice in

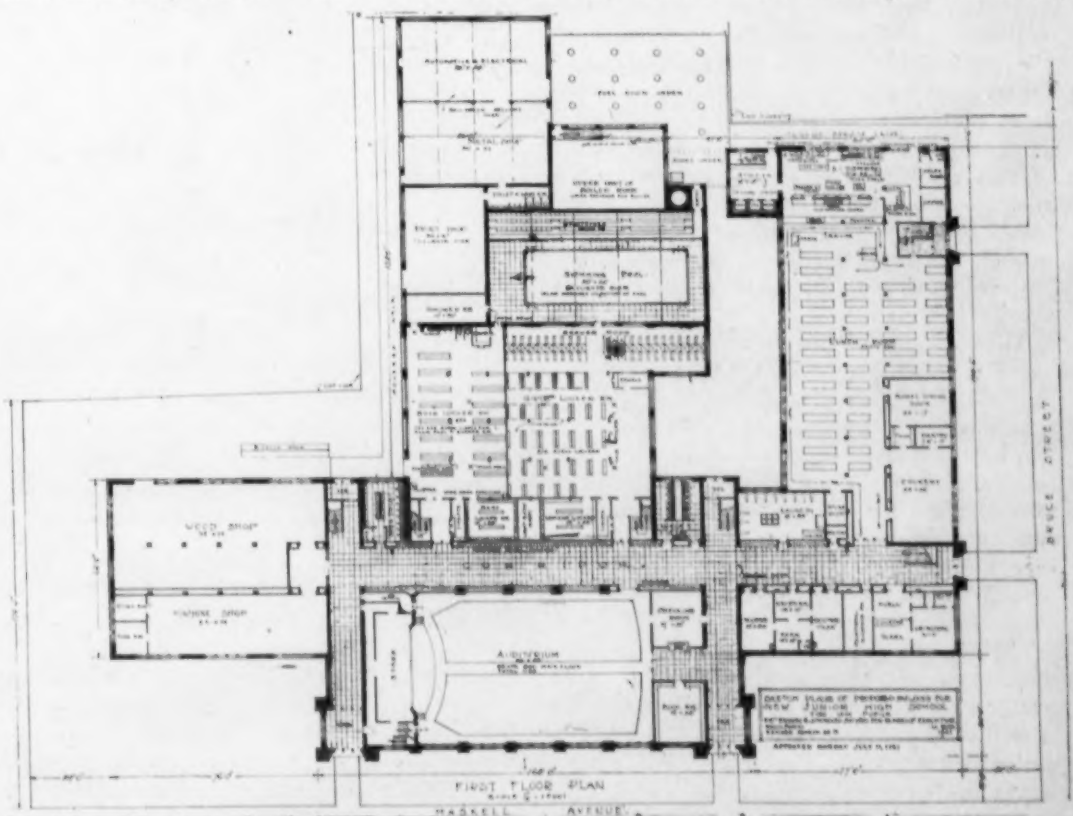
the field of schoolhouse construction and sanitation. He should also be familiar with tendencies and probable future needs in public education. Small eight or twelve-room "box" buildings "with windows regularly punctured in all of the outside walls" are no longer suited to the rapidly changing needs of public education. The educational staff of the schools of Rockford have worked in the closest cooperation with the architects in formulating and planning a new type of school building for the city.

THE KISHWAUKEE SCHOOL.

The first contract awarded was for the Kishwaukee elementary school. This is a 26-room

building, costing \$310,000, not including equipment. The plans for this building were completed and the contract awarded in June, 1921. The building is now under construction and will cost 32 cents per cubic foot.

The building measures 221 feet by 96 feet over all, and the site on which it is located has a frontage of 417 feet with a depth of 304 feet. It is practically fireproof in construction. The exterior walls are solid brick, faced with a good quality of rough texture brick. The floor construction is reinforced concrete, with finished floors in classrooms of maple and corridor floors of 6"x6" red tile. The trim is plain-sawed oak,



FIRST FLOOR PLAN, WEST JUNIOR HIGH SCHOOL, ROCKFORD, ILL. Peterson & Johnson, Architects.

stained silver gray. It is planned to have all the equipment finished to match the trim. When the new building is completed the old building will probably be demolished, allowing more playground space.

The building has been purposely planned so that the boiler and fuel rooms are located outside of the main structure but attached to the north side. The fuel room, with a capacity of 150 tons, is entirely below grade so that the fuel is dumped in from the top. The heating and ventilation system is known as the "split" system. The ventilation is accomplished by a fan equipped with an air washer. Direct radiation is provided automatically controlled. The school has been planned for a platoon system similar to the Detroit platoon plan. In accordance with this plan it was found advisable to install lockers in the corridor walls, but separate wardrobes were provided for rooms housing grades one to three inclusive. Folding iron gates on each floor make it possible to cut off the classrooms when out of school hours it is desired to use the auditorium only for community work.

The ground floor contains a gymnasium 55 feet by 75 feet, divided by a movable partition into separate boys' and girls' gymnasiums, complete with shower, lockers, and toilet rooms for each sex. A balcony 19 feet by 55 feet is built at one end over the locker room and is accessible from the second floor corridor. A sewing room, cooking room, lunch room, library, literature room, kindergarten, printing and manual training rooms are also on the ground floor. Separate entrance to the gymnasium, library, sewing and domestic science rooms make it possible to conduct evening classes and other forms of community work apart from the remainder of the school. The library can be opened to the public when the school is not in session.

The second floor contains eight classrooms, and in addition, the principal's room, the nurse's room, the book room, the store room, the school bank, and one waiting room.

The third floor contains seven classrooms, and in addition, the music room, the art room, the teacher's room, and an auditorium seating six hundred. The auditorium is divided by a collapsible partition into two study rooms and is lighted from overhead.

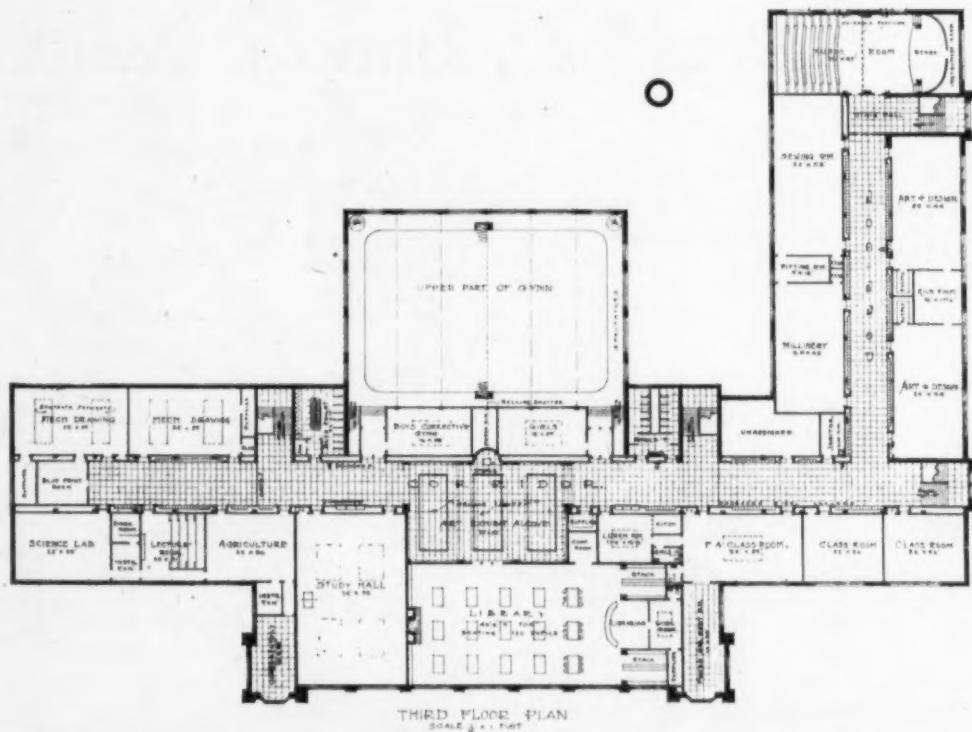
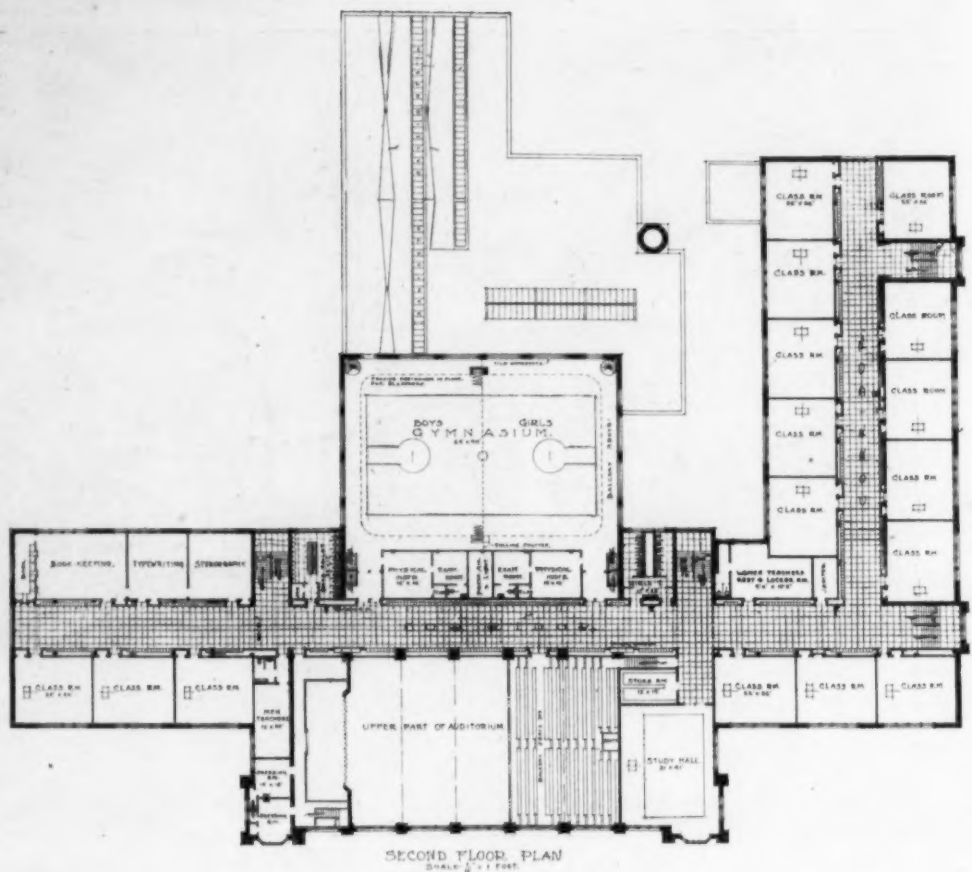
THE INDUSTRIAL HIGH SCHOOL.

The second building contract was for a four story Industrial High School to adjoin the present high school and administration building on the west. This building is of reinforced concrete construction throughout; interior partitions are steel or gypsum block. With the exception of the ground floor, classroom floors are of maple, and the floors of toilet rooms are of tile. A maximum of light is obtained by the use of steel sash. An elevator makes it possible to send the large and heavy materials from the automotive shop to the machine shop and floors above.

All machines will be electrically driven with individual motors. The building will cost approximately \$100,000, and when it is completed, ten class rooms in the present high school building, now occupied by industrial equipment, will be available for academic studies. This will provide room for the new students but will not eliminate the necessity for leasing other buildings and possibly ultimately remodeling the central buildings of the present high school plant.

The first floor contains the general metal shop, farm and home mechanics shop, automotive and electrical shops, stock and supply room, as well as toilets and wash rooms which are conveniently placed.

The second floor contains the machine shop with the necessary forge and tempering room,



FLOOR PLANS OF THE WEST JUNIOR HIGH SCHOOL, ROCKFORD, ILL. Peterson & Johnson, Architects.

the tool-making room, the office for the vocational supervisor, and toilet and wash room.

The third floor contains the woodworking shop, the pattern shop, and the necessary tool and supply rooms.

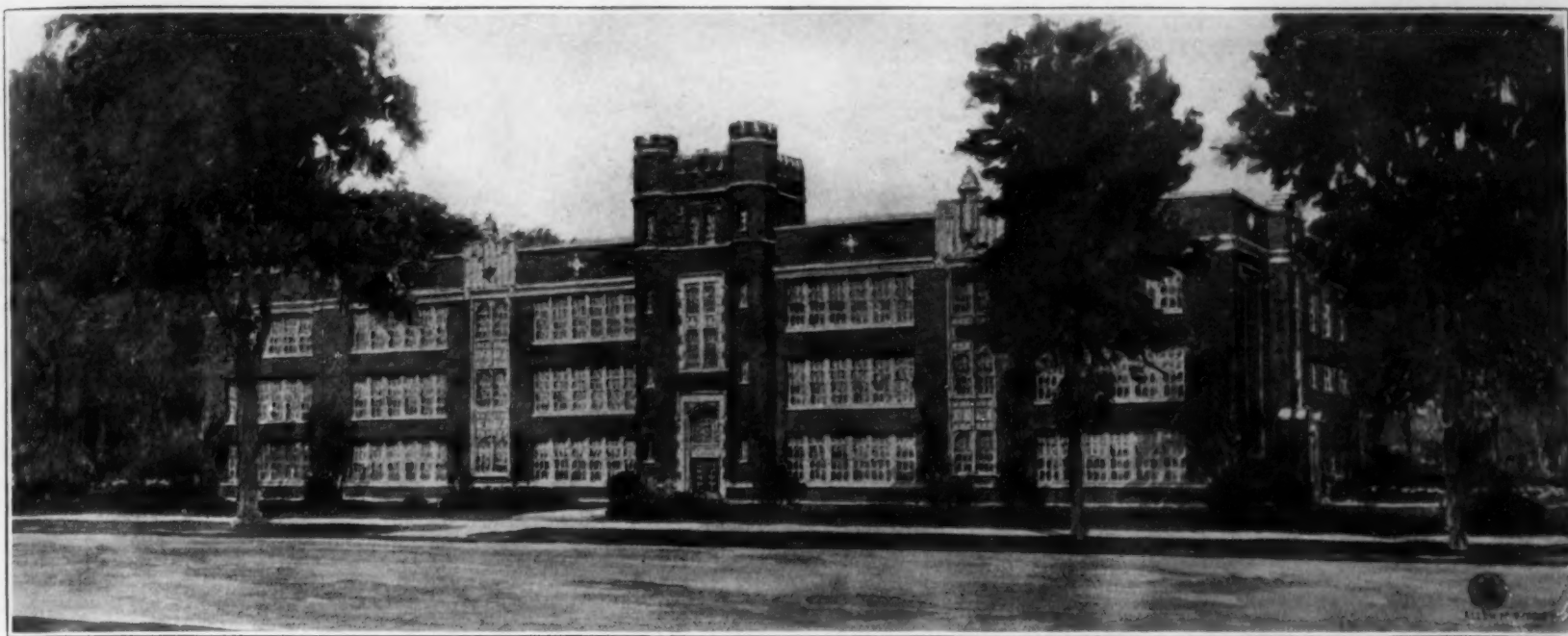
The fourth floor contains three drafting rooms lighted by saw-tooth skylights, and also a blue-print room and a stockroom for the drawing department.

THE WEST SIDE JUNIOR HIGH SCHOOL.

The Rockford board of education unanimously approved the sketches for the new West Side Junior High School to be erected at an estimated cost of \$670,000. The architects in co-operation with school officials have succeeded in planning a building that will fit the special needs and curricula of a junior high school. The gymnasium, auditorium, library, art exhib-

it, swimming pool, shops, and other special rooms have been centralized so that they may be used to the best advantage as community centers and for evening and extra curricular purposes.

With the exception of excavating for the boiler room, the fuel room, and the plenum tunnels under the corridors, very little excavating is required. It might be stated that there will be no basement rooms in any of the proposed Rockford schools, the desire being to take advantage of all the light and air possible. Therefore, the buildings are erected entirely above ground. In addition the plan allows for open type courts, thus securing sunlight penetration and more perfect sanitation. The building is of fireproof construction with the boilers located outside of the main building and with numerous exits provided in order to reduce the fire



KISHWAUKEE SCHOOL, ROCKFORD, ILL. Peterson & Johnson, Architects.

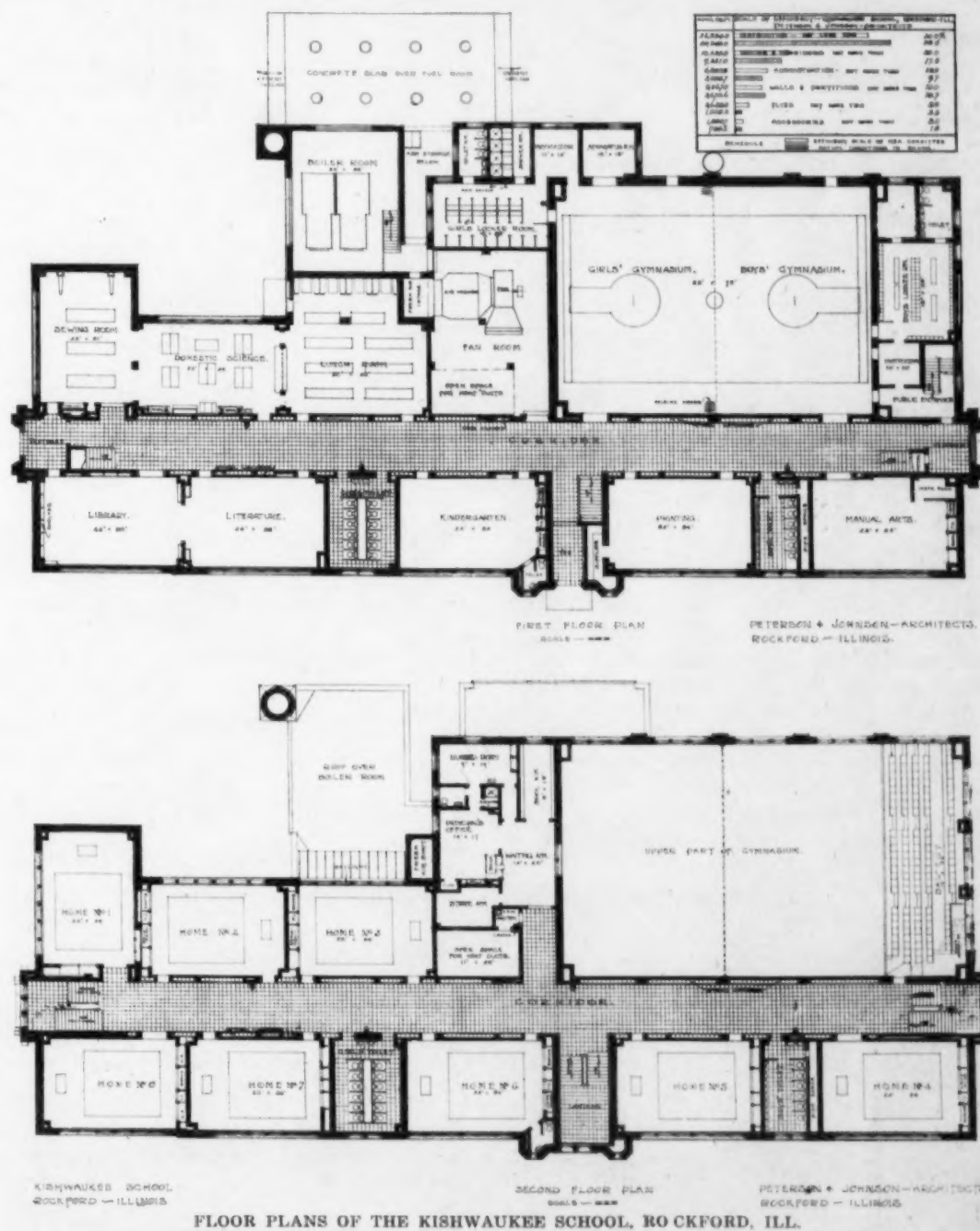
hazard. The building has been planned for a capacity of 1200 pupils. The service ducts are placed in corridor walls rather than in partitions between rooms. This makes the building flexible. Furthermore, the building is so constructed that it will be possible to build additions in two directions and expand the capacity of the plant to 1800 or 2400 as the need may arise. This may be done without marring the architectural unity.

The exterior will be finished with a dark face brick and terra cotta trimmings. The towers are the principal features of the exterior and are Gothic in design. Separate blowers, for the central portion devoted to community use, are provided in order to make it possible to economize on fuel when the rest of the plant is not in operation. The plan as outlined by the architects embodies a primary feature of coordinating educational and athletic facilities that are conceded by educators to be ideal; that is the construction of an athletic field adjacent to the school grounds, bringing the classrooms, the gymnasium, the swimming pool, and the bath and toilet facilities in close juxtaposition.

The wood, machine, metal, automotive, electrical, and print shops are located on the ground floor and are sufficiently large and well lighted. Two mechanical drawing rooms are located directly above the wood shop. The auditorium seating 1200 is located upon the ground floor with a balcony opening to the second floor. The administrative offices, the free text book room, the lunch room seating 400, the cooking room and the model dining room, are all on the main floor. The first floor also contains the boys' and girls' locker rooms which are conveniently located directly below the gymnasium and adjacent to the swimming pool.

The swimming pool, 20 feet by 60 feet is accessible from both boys' and girls' shower rooms and also has a separate exterior entrance to a spectators' gallery seating 110. The pool will be of white tile with inlaid markings on bottom, a large skylight extending over the entire pool, together with the large windows admit an abundance of sunlight.

The second floor contains two gymnasiums 45 feet by 64 feet, each so located and arranged that they may be made into one large gymnasium 64 feet by 90 feet when it is so desired. This is made possible by a collapsible partition through the middle. The dressing rooms are directly below the gymnasium and of easy access. A spectators' gallery five feet wide extends around the entire gymnasium on the third floor level. The bookkeeping, the typewriting,

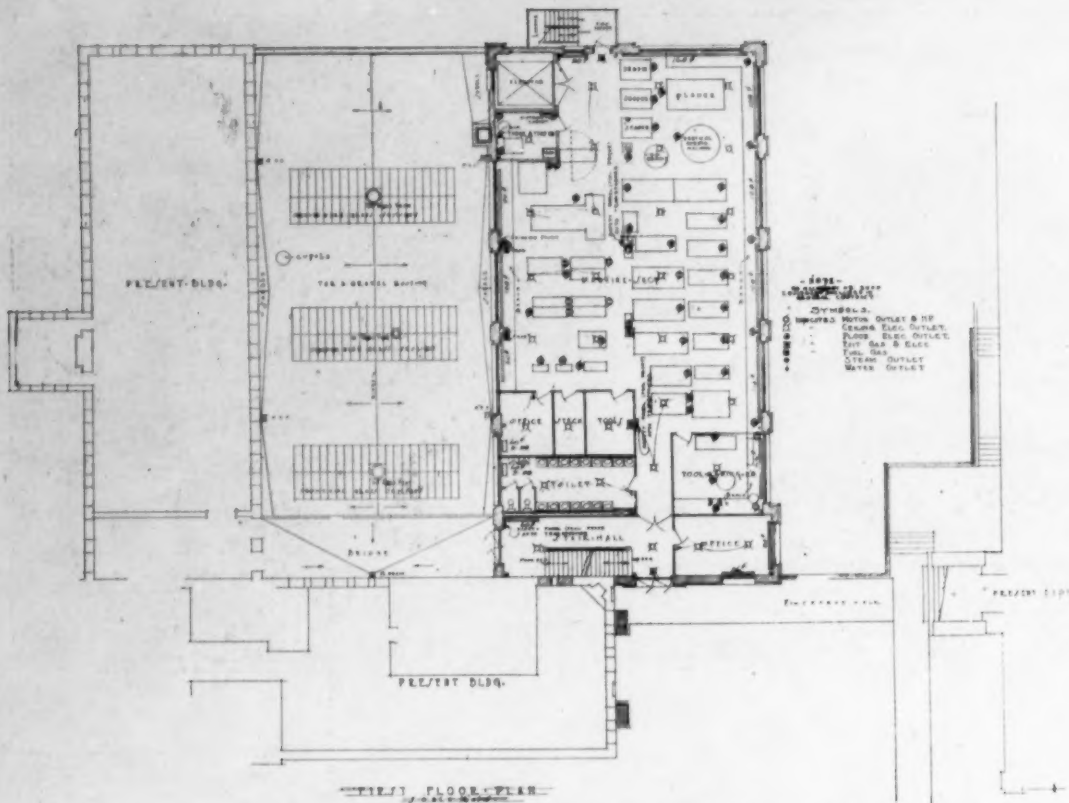


the stenography, and the banking rooms are grouped together on the second floor. Sixteen classrooms, a study hall, a men and a women teachers' room complete the second floor.

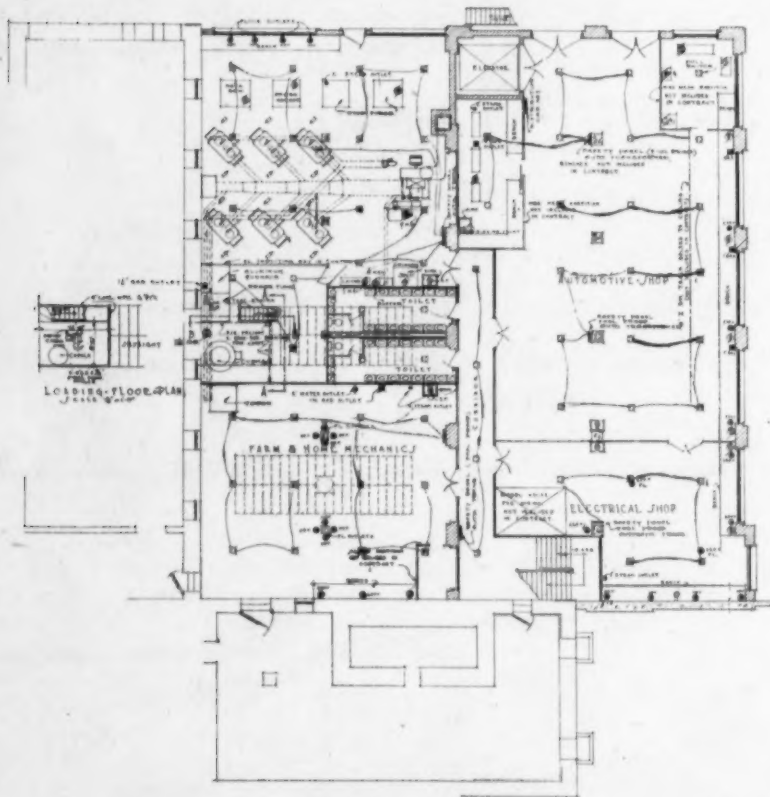
The third floor contains two drafting rooms, a science laboratory, a dark room, a lecture room, an agricultural class room and laboratory, a conservatory, an art exhibit alcove, a library,

a sewing room, a special music room, two art rooms, two corrective gymnasiums, a suite of open-air classrooms, two regular classrooms, a study hall, and a library that will seat a hundred and fifty.

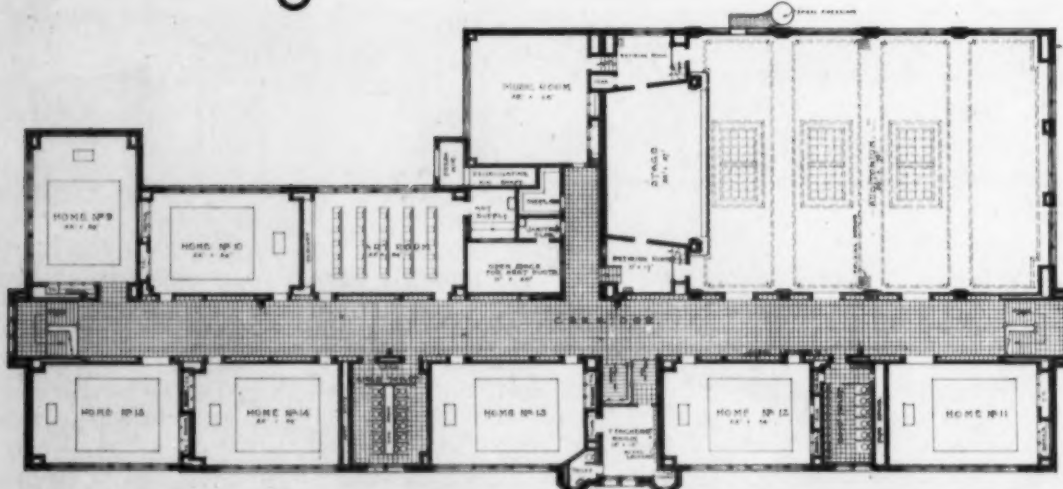
The East Junior high school will be similar in plan, but the architects will design an entirely different exterior.



FIRST FLOOR PLAN, ADDITION TO TECHNICAL HIGH SCHOOL, ROCKFORD, ILL.



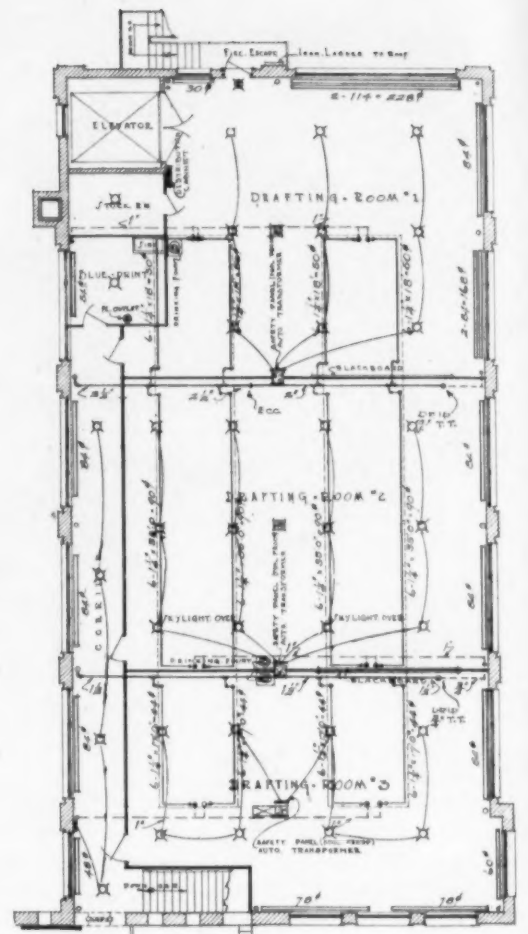
BASEMENT PLAN, TECHNICAL HIGH SCHOOL, ROCKFORD, ILL.



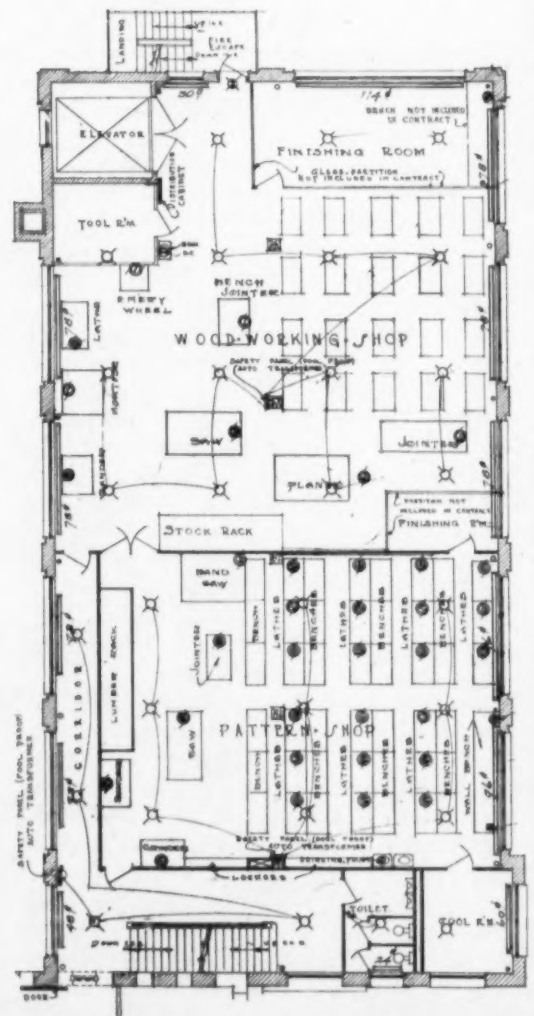
ROCKFORD SCHOOL BOARD - ILLINOIS

THIRD FLOOR PLAN

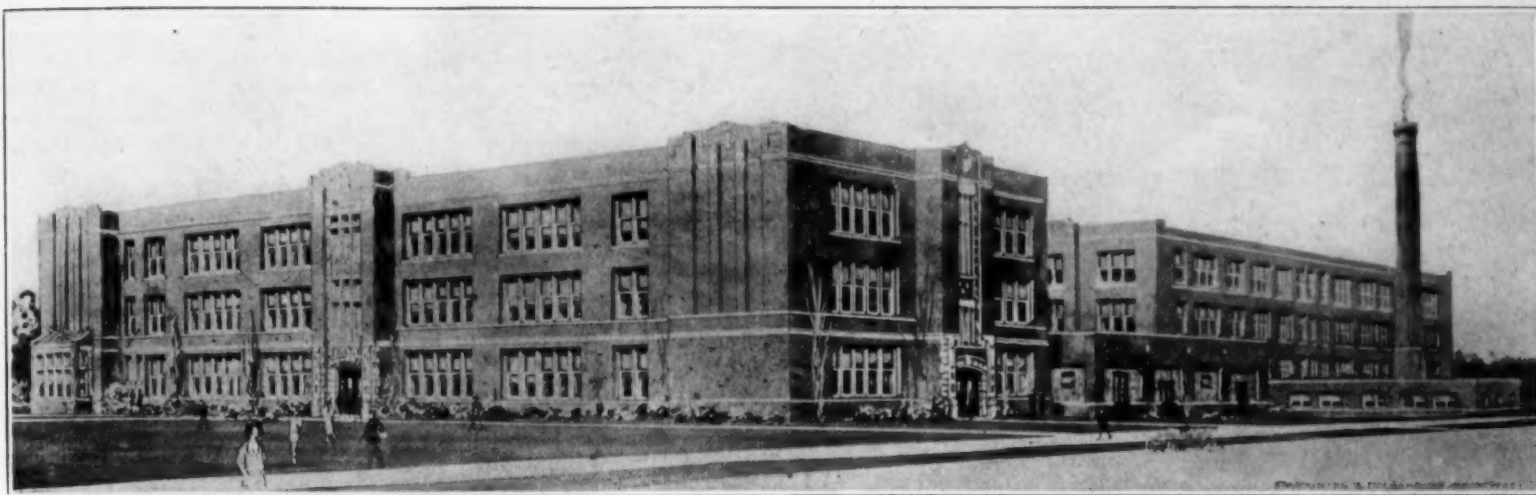
PETERSON & JOHNSON - ARCHITECTS
ROCKFORD - ILLINOIS



THIRD FLOOR ADDITION TO TECHNICAL HIGH SCHOOL, ROCKFORD, ILL.



SECOND FLOOR PLAN, ADDITION TO TECHNICAL HIGH SCHOOL, ROCKFORD, ILL.
Peterson & Johnson, Architects.



JUNIOR HIGH SCHOOL, MANUAL TRAINING BUILDING AND POWER HOUSE, MARINETTE HIGH SCHOOL GROUP. Parkinson & Dockendorff, Architects.

New School Group at Marinette, Wisconsin

P. F. Neverman, Superintendent of Schools

Marinette, like so many other cities, found its school facilities, at the end of the war period, inadequate to care for its children. School enrollments had increased due to four factors: (1) an educational stimulus resulting from the war with its standard minimum of a high school education; (2) good wages, making it possible for the average individual to send his children to school; (3) legislation compelling part time attendance up to a certain age, a fact which has been responsible for keeping thousands in the public high school, and (4) an increase in population.

A careful study was made of the Marinette problem, both from the professional and business standpoints. Two men, experienced in school building needs and programs, were engaged to make a survey of the situation. An analysis of the situation developed the fact that Marinette's problem would best be met by a central high school organization. It was further developed that a city of 15,000 should also have but one special opportunity center. It was decided that this center should provide special work for the children mentally retarded, for the deaf and dumb, and for those in the early stages of tuberculosis; that it include the school health center, and take care of all health examination work including the provision for a full time dentist.

With the foregoing as a business basis the situation was next studied from the professional standpoint. It was conceded from the beginning that the junior and senior high schools should be housed in separate buildings. The housing of manual training, especially the shop work, was carefully studied with the result that it was decided to erect a special building for this line of educational endeavor.

The five reasons advanced for the erection of a separate manual training building were as follows:

1. The construction cost would be less.
2. It would reduce the insurance rates on the other buildings.
3. It would be cheaper to heat, since the temperature would never need be over 60°.
4. It would remove noise and dirt from the other buildings.
5. It would provide actual shop conditions.

The character of the junior high school building next received careful attention and study. It was conceded that a general study or assembly room was inefficient and should not be included in the new school. The so-called supervised study of the average, present-day high

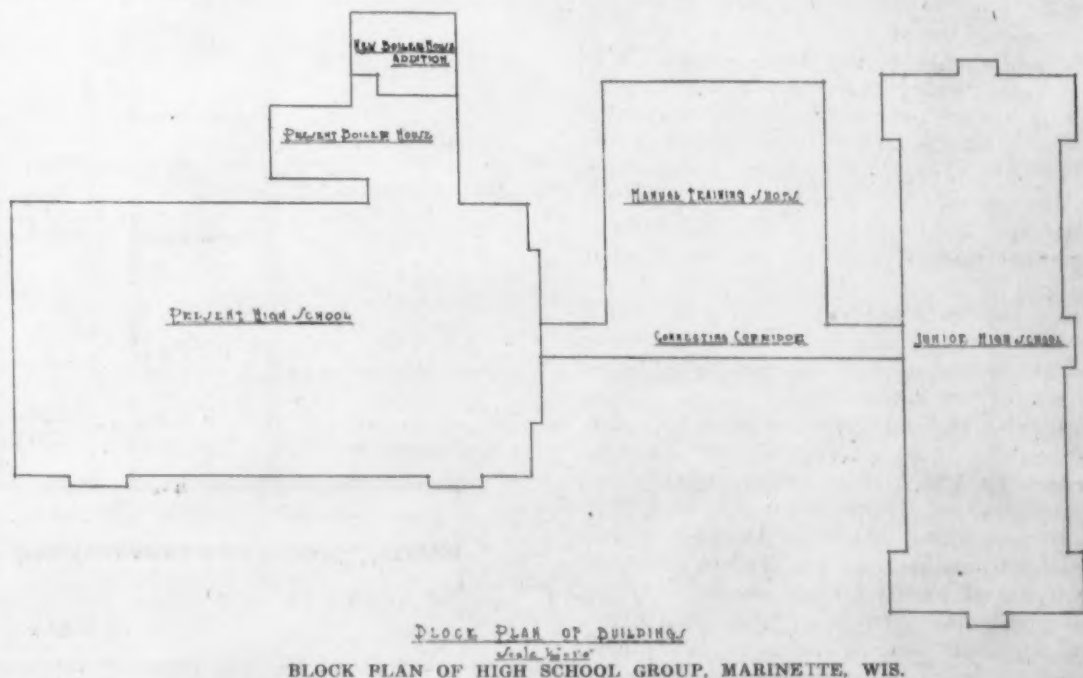
school was next studied. This type of work was found expensive in building cost, equipment and instruction and, according to some authorities, inefficient. A careful study made in a number of schools revealed the fact that supervised study handicaps the superior students and does not benefit the average or weaker pupils. Many educators call the supervised study a crutch which does not develop independence, initiative or self reliance in children, three qualities more needed in life than a mere fund of academic knowledge or information. The plan of supervised study, in the judgment of many educators, gives the children of today the same advantages, or rather the same disadvantages, possessed by the children of twenty years ago.

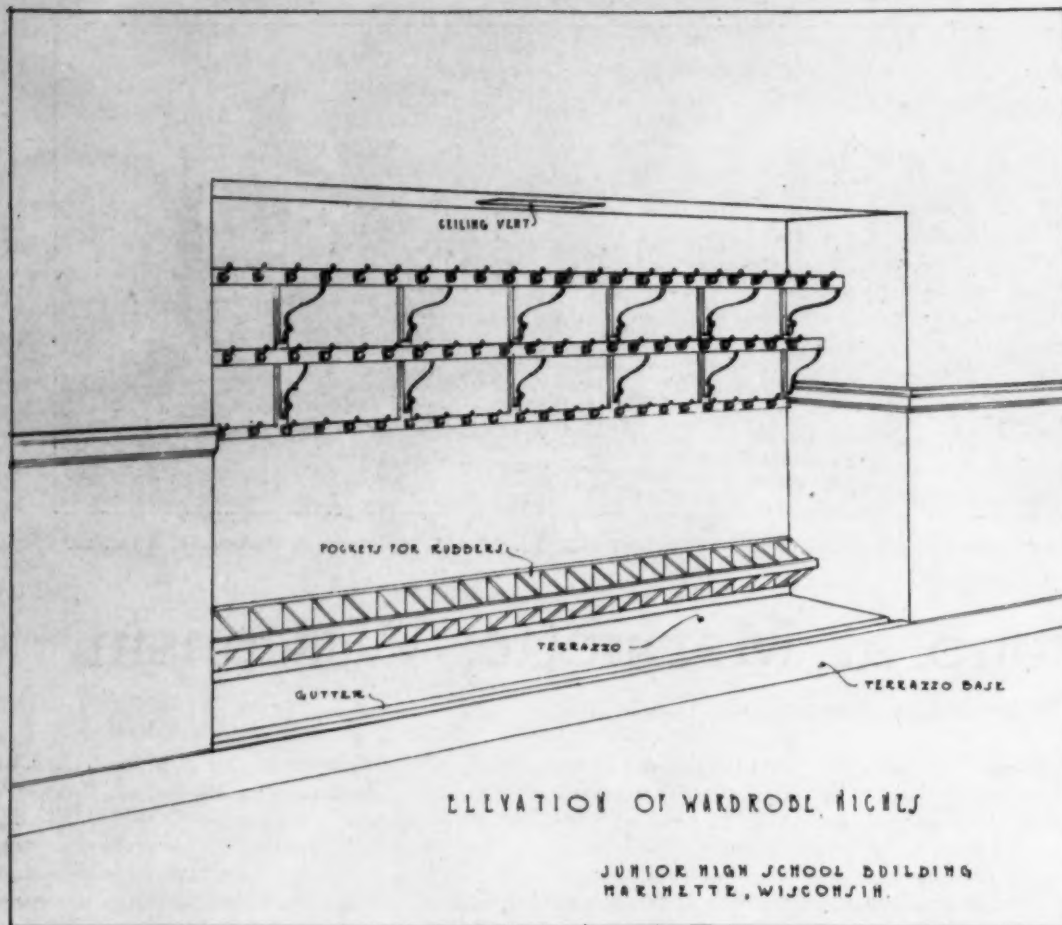
The Marinette board of education finally decided against the quite generally accepted supervised study plan and will instead have 45 minute class periods with study centers. Each study center will be equipped with the tools for a particular field, and a student assigned, for example, to the English study, will find an English reference library available for work. Each study center will be in charge of a teacher, belonging to that center, who is off duty from a regular class. The same is equally true of students assigned to history, science or other studies.

The board of education went systematically

about the selection of an architect. About twenty architectural firms applied for the work. A questionnaire was prepared on which the architects were to list the schools erected during the last four years, together with the names and addresses of local men responsible for the erection of the buildings. After these replies were in, another questionnaire was prepared for the men in charge of local construction, such as presidents and secretaries of boards of education and superintendents of schools. When replies to this questionnaire had been received and studied only four firms received further consideration. Buildings erected by these firms retained were visited and carefully inspected from the standpoints of adequate planning, construction, and cost. After study and discussion, Messrs. Parkinson and Dockendorff of LaCrosse were selected. The work of this firm has been very satisfactory to date. Their thorough knowledge of school problems and needs as well as their superior ability as honest and reliable builders, make them desirable as school architects. In spite of the high cost of labor and materials, Marinette contracts were let on May 18th at a total cost of 24 cents per cubic foot. This for all fireproof construction was an excellent figure.

Considerable study and time were given the exterior and interior architectural expression of the new junior high school building and the





connecting 150 feet long corridor between the present and new building. With the present high school building as a given and existing factor, the idea of creating a harmonious group was uppermost in the minds of the architects. The new building and connecting corridor are designed in the Jacobean style of architecture with a slight predominance of the gothic. This period of architecture is very appropriate for schoolhouse work, being both beautiful as well as economical in execution.

The entire structure is of concrete, brick, tile and stone construction, making it as nearly fireproof as possible. Vitrified brick and buff Bedford Indiana lime stone trimmings are the materials for the exterior expression, whilst terrazzo floors constitute the material for all corridor and toilet room floors inside.

All toilet rooms are wainscoted with marble as well as all of the stalls, etc.

The interior finish of the woodwork is of red oak.

Block Plan of Central Buildings.

The block indicates without further explanation the unity of the central plant. The manual training building is readily accessible to both senior and junior high schools. Both junior and senior high schools retain their identity but are near enough to one another to allow of the freest kind of intermingling or programming of individual children. Experience has demonstrated that a fairly large proportion of children, about twenty per cent, can do more than the ordinary work of the school. The proximity of the two schools will make it possible to take care of these children in such a way as to save them a year, and at the same time, in consequence of this saving, to lessen the cost of their education.

The three buildings are connected by a corridor making it unnecessary for any child to be exposed to the extreme cold of winter, and to rain and snow. The corridor is 150 feet long and 10 feet wide. The space in front of the manual training building and between the other schools will be parked for the present.

All piping for heat, water, gas, ventilating, light, telephone, etc., is conducted in tunnels under the corridor and other parts of the build-

ings. All tunnels are from seven to nine feet high.

The present building is being remodeled so that it will contain all of the home economics work. Besides this, plans are being made to provide two mechanical drawing rooms and a large print shop.

The basement of the present building, which previously was used for manual training, is being converted in a large cafeteria, which will care for about 400 students, and a cafeteria kitchen. The cafeteria will be connected with the gymnasium, making it possible to provide for large gatherings without inconvenience.

Manual Training Building.

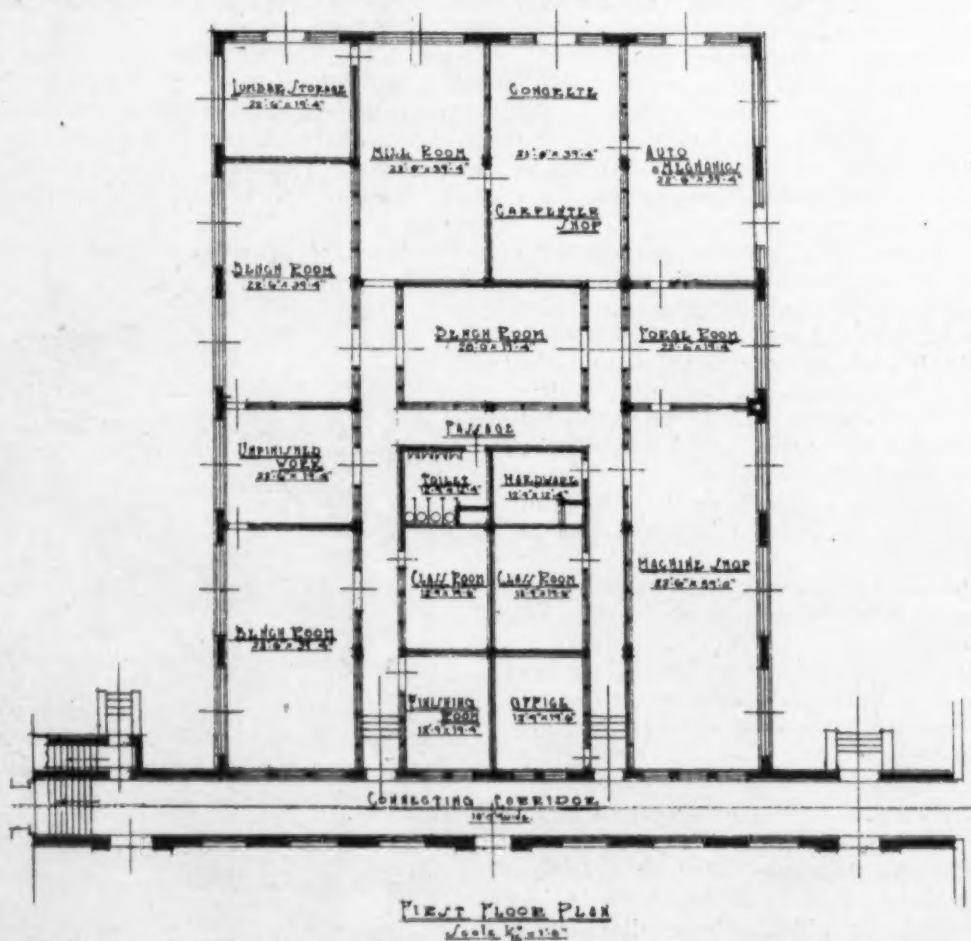
This is one of the few independent manual training buildings now in operation in this country. The manual training building is 90'x122'. The building is of true shop construction. There will be no plastering or decorating of any kind. The office will be on the same level as the corridor while the rest of the building will be about thirty inches below corridor level. It will contain three bench rooms, a machine shop, a forge room, an automobile mechanics room, a combination concrete room and carpenter shop, a mill room, a lumber storage, a room for unfinished work, a finishing room, two classrooms, a hardware supply room, a toilet room and an office. A study will show that this building is designed for efficient work.

The building is of tile, brick, and steel construction and one story high. It has fourteen skylights and has an average light ratio of one to three. Most of the partitions are of glass and are so constructed as to be easily removed or changed in case it is found necessary to provide different sized rooms. The entire building is on the ground level which makes it possible for automobiles to drive into the automobile mechanics room, and allows the handling and placing of machinery and materials at a minimum expenditure of energy. A complete blower system as well as forced ventilation is provided.

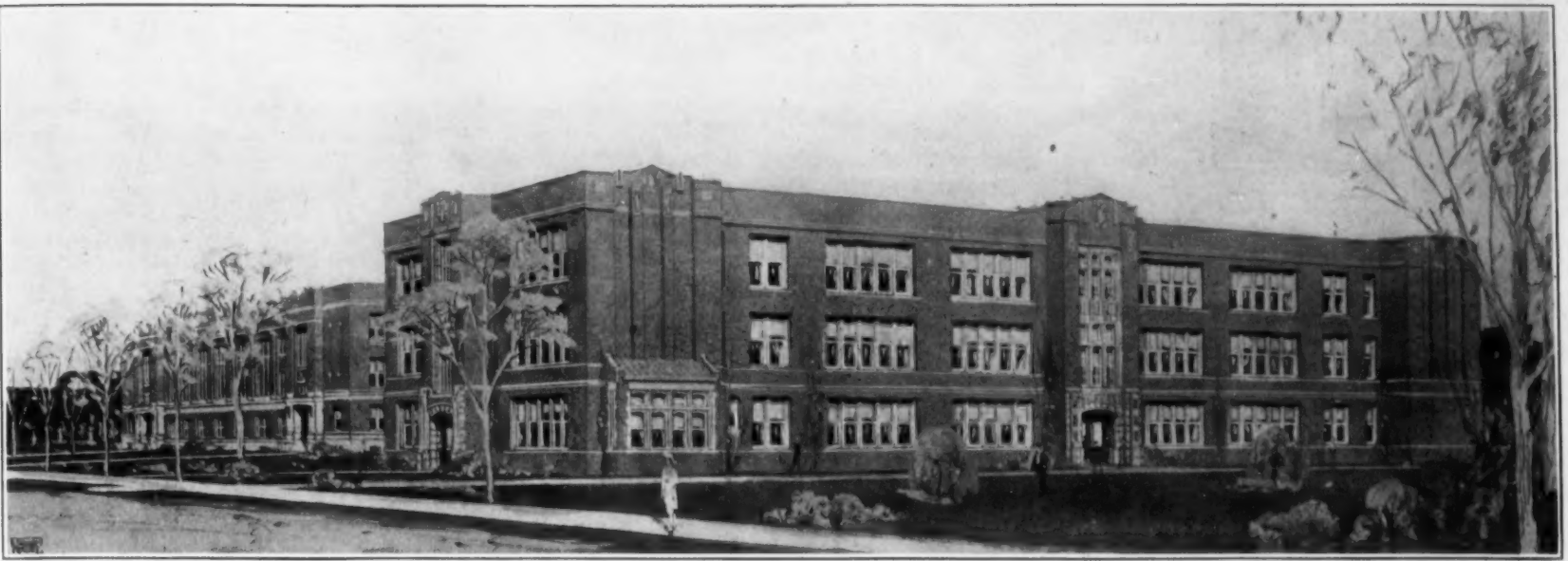
The building is so complete that all of the furniture and equipment for the junior high school will be built by the students in regular classes with the exception of pupils' desks. Teachers' desks, reading tables, etc., will be constructed during the present year and will be ready upon completion of junior high school in September 1922.

Junior High School.

The junior high school is a modern fireproof structure. It is 74 feet wide and 221 feet long. It is a three story structure without a basement in the ordinary sense of the word. What basement space there is has been provided solely for heating pipes and ventilation.



FLOOR PLAN OF MANUAL TRAINING BUILDING, MARINETTE HIGH SCHOOL GROUP.
Parkinson & Dockendorff, Architects, La Crosse, Wis.



JUNIOR HIGH SCHOOL, MARINETTE, WIS. Parkinson & Dockendorff, Architects, La Crosse, Wis.

The building provides east and west light which is by far the best for school purposes. The average light ratio for the entire building is about one to four.

One-half of the first floor will be given over to special work. The south wing will contain a 22'x32' fresh air room with east and south exposure. Private toilets and cloakrooms are provided. The office suite will occupy a space 22'x30' arranged as indicated on floor plan.

The deaf and dumb room will be 22'x24', amply adequate for the twelve children ordinarily cared for in this line of work by one teacher. The special development classes will occupy a space 22'x68' arranged into two classrooms and one work room.

A joint waiting room is provided for the dental clinic and nurses' room. The dimensions of the nurses' room are such as to allow for eye examinations as well as all other work. A dressing room and toilet are provided in connection with the clinic and nurses' room.

Provisions are made on each floor for both boys' and girls' toilets. Toilets are located immediately above each other, thus simplifying piping and reducing expense of installation. A service closet is placed back of each toilet.

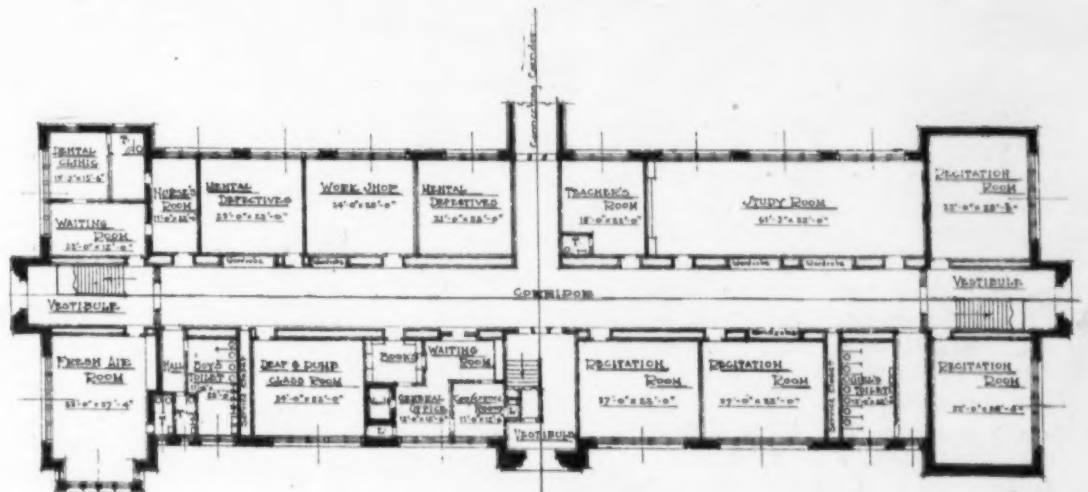
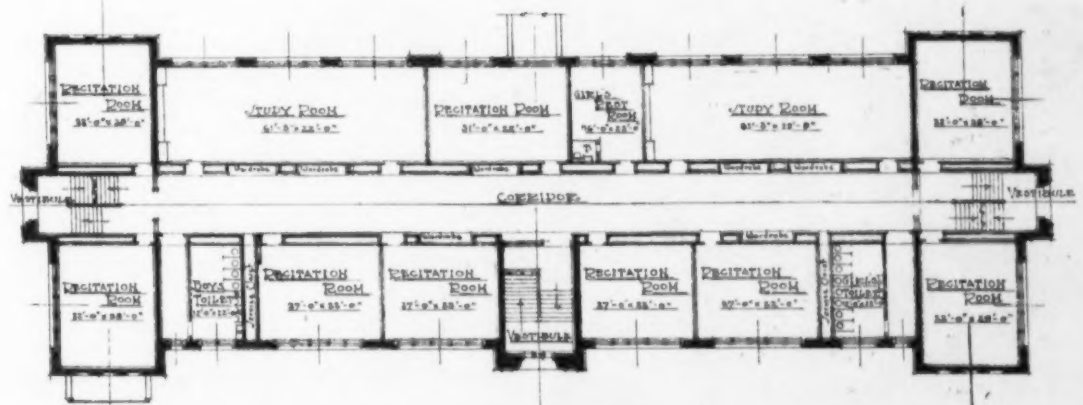
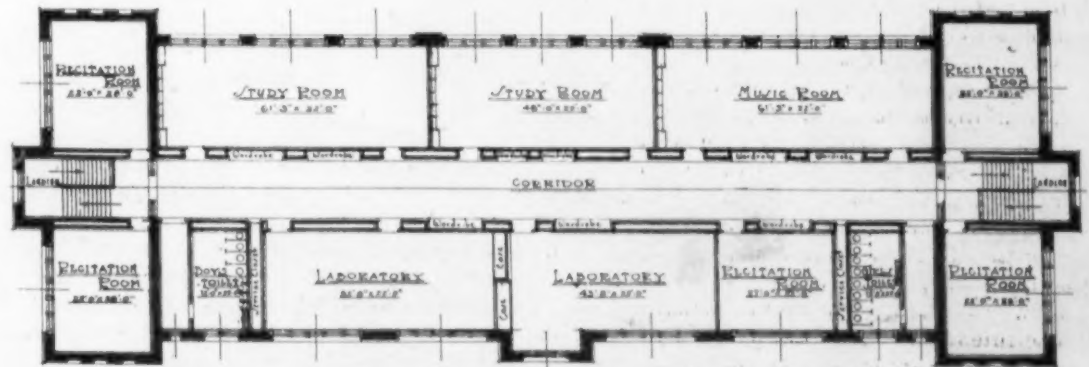
A teachers' rest room is provided on the first floor and a girls' rest room is placed on the second floor.

The north wing of the first floor is intended for English recitation rooms and study room. Four ordinary recitation rooms are provided which will also be used as home rooms. The study room on this floor will be constantly in charge of some English teacher and will be provided with all of the tools necessary for effective English work. Pupils will be assigned to English study just as definitely as they are to an English class.

The south wing of the second floor will be used for history, citizenship, and Latin. Five recitation rooms are provided with a study center for these subjects. The north wing will be used for mathematics. Four recitation rooms are provided for this subject as well as one study center. The south wing of the third floor is arranged for science. This provides two recitation rooms, two splendid laboratories and one study room. The north wing contains a music room large enough to care for a chorus of over one hundred voices. This wing also contains three recitation rooms and one study room for which work has not yet been definitely planned.

The building will, as it stands, care for, outside of the south wing of the first floor, 1000 students.

The plan as outlined above will care for thirty per cent more students than the quite (Concluded on Page 111).

FIRST FLOOR PLAN
Scale 1/8" = 1'-0"SECOND FLOOR PLAN
Scale 1/8" = 1'-0"THIRD FLOOR PLAN
Scale 1/8" = 1'-0"

FLOOR PLANS OF JUNIOR HIGH SCHOOL, MARINETTE, WIS.



THE AMERICAN School Board Journal

WM. GEO. BRUCE } Editors
WM. C. BRUCE }

EDITORIAL

DEFINING AND FIXING SCHOOL CONTROL.

The efforts to define more clearly the division of authority between school boards and superintendents cover a period of a quarter of a century. These efforts have resulted in a gradual enlargement of the scope of the superintendent, and in a lessening of that of the school board.

The superintendent's status is now more definitely fixed. In drawing the line between the professional and business labors of the school administrative factors, the superintendent becomes the educational expert and executive and the school board the general administrative and legislative body.

If the school board's function has been narrowed in certain particulars it is because, in the nature of things, such narrowing was proper. School board members could not be allowed to meddle with the purely professional phases of school administration any more than superintendents could be expected to determine upon purely financial and business policies.

At the same time the function of the school board has been intensified in that it centers its efforts upon policies and projects and holds more nearly to essentials making for efficiency and educational results.

While this division of duties and responsibilities between school board and superintendent has been recognized in a general way throughout the land it has not been defined with any degree of exactness or legally established. Moreover, here and there school boards have invaded the province of the superintendent, and we may add, without profit to the system.

The breaches in observing the relative functions of the several school administrative factors must be charged in part to the yielding and retreating superintendent as well as to over-assertive and officious school board members. School boards are not infallible, superintendents are not perfect.

The efforts of educators are now directed in bringing the relations between superintendent and school boards in clearer relief and to fix these several functions and relations through the aid of the law. A committee of the National Education Association making a study of the subject has this to say:

"The superintendent should have the sole responsibility for the nomination of all employees under his supervision. The authority of the superintendent in the transfer of all educational employees within positions of the same rank and salary should have the same authority of initiative in the termination of service that he has in their appointment. The duty of preparing the budget should be assigned to the superintendent. The duty of taking the school census and enforcing the compulsory attendance law appertains to the office of the superintendent. It should be the duty of the superintendent to recommend suitable school sites and approve all plans for new buildings. He

should be held responsible for the determination of all subjects having to do with the curricula. He should have the initiative in the selection of textbooks and supplies."

In reading this enumeration of the duties and responsibilities to be definitely assigned to the superintendent one cannot escape the impression that the committee has been somewhat generous in piling work upon the shoulders of the school expert. It has forgotten nothing, except perhaps the duties and prerogatives of the school board.

And yet it must be conceded that if the superintendent is to be held responsible for the successful operation of the school system he must have some control over the factors which make for order, discipline and results. In any plan to be outlined the superintendent's right of initiative and the school board's veto power must be clearly stated and must be confined to the more strictly educational labors.

It follows, of course, that the financial and business phases have a bearing on the professional, but there the initiative as well as the final conclusion must rest upon the board. The judgment of the superintendent on budget making and selection of school sites should be consulted and given much weight, but it does not follow here that either the initiative or the final approval can be lodged with the superintendent.

Those who are desirous of establishing the status of the superintendent by law must bring into their deliberations a variety of conditions dealing with large and small cities, the human limitations and the relations and the several adjustments which make for strength, harmony and service.

Incidentally the status of the school board, its obligation to the tax-paying constituency and its legislative, judicial and administrative function, must not be overlooked. On the whole, it must be remembered that the American schools are a democratic institution which must not only be kept near the people but whose administration must be democratic in spirit and practice.

NEW SCHOOL TAX EXPEDIENTS.

There is just now a tendency in various sections of the country to examine prevailing methods of taxation for the support of the schools and to find, or originate, new sources of revenue. These efforts proceed from the thought that the schools are inadequately financed and that more money should and must be raised.

The pressure for more funds is accentuated by the fact that it has cost more to run the schools in recent years while the tax limitations have not been extended accordingly, and that tax revenues have not been proportionately increased. Thus, school authorities everywhere are confronted with an increased budget and the problem of squaring revenues with expenditures.

The studies thus far engaged in have brought various expedients to the surface. They provide for special taxation of industrial and commercial interests, a larger state support for the poorer districts, and finally the introduction of federal support.

The champions for increased school support assume that the old time division of tax moneys between the various departments of government no longer hold good. They do not take into account the fact that the period of deflation and reconstruction will lower the cost of everything else, but insist that the standards of cost reached during the war must remain.

The question as to what proportion of all the tax moneys raised shall go for education, for police, fire and health protection, and the general administration of government, has never

been and cannot be fixed with any degree of finality.

Of necessity these proportions must vary with the locality and the physical and moral conditions to be dealt with. Thus, with time and experience a system of tax distribution has been evolved based upon the support each branch of government requires in order to maintain certain standards of efficiency. The schools secure a liberal share of the tax moneys, not on what is deemed an equitable share of the whole, but rather on the basis of what may be necessary to conduct them on certain standards.

In devising ingenious schemes and methods of taxation let it not be forgotten that somebody will have to pay. Taxation is an old problem—the oldest in political economy—which has never been solved to the general satisfaction of any constituency. There are no patented devices, or painless methods, that will extract money without someone bearing the burden. Place your tax on property, on income, on sales, on thrift, or what not, the ultimate consumer will bear the whole burden; exact it by counties, by states or by nation, and it will have to come from the people just the same.

But, would it not be well to satisfy ourselves first that the schools really require a larger share out of the general tax yields than is now apportioned? Is it reasonable to assume that, with a reduction in the cost of labor and materials, the schools must still be conducted upon a high price, war basis?

Again, shall we invoke federal aid and thus depart from the fundamental idea that the schools are the concern of the state, that they must uphold the spirit of democracy and must therefore remain under the immediate control of the people?

The schools of the country as a whole have been well supported. Their control in local hands have stimulated pride in them and has prompted liberal support for them. To accept federal aid means to yield to federal conditions, which in turn means federal control.

The effort of the hour should be to get the highest measure of service out of the moneys now expended for school purposes. That would be a more profitable task than to scheme how to raise more money. The schools have, no doubt, during recent years seen a lowering of standards, and deserve the greatest care and attention in the direction of greater efficiency and service. The logic of the situation does not demand more dollars for education, but more education for the dollar.

THE CALL FOR BETTER TEACHING.

A gratifying and timely note is sounded by some of the educators of the country for better service in the schools. It has become apparent that the slogan of "better salaries for better teachers" must now be reversed to "better teachers for better salaries."

In the economic revulsion of the past few years the law of supply and demand was the means of providing better compensation for the schoolroom workers. While the same law had brought the compensation below equitable standards, it is now commonly conceded that the higher compensation must remain if educational progress is to be stimulated.

The situation at this time demands that greater consideration be given to the importance and value of the service rendered, that the relation which the teacher bears to the stability and progress of the nation must come into higher appreciation, and that the profession must be accorded greater social prestige and adequate material support. The transitory character of the teaching profession has unquestionably weakened its prestige and standing, but ultimately this does not lessen the high function assigned to the profession.

It follows that the school authorities must, once and for all, depart from the former idea that the hiring of teachers is a mere question of bargain and sale. The supply and demand principle must be discarded. It can never prove as advantageous to secure a teacher for less money than to proceed upon the theory of securing a better teacher for the same money. The bargaining of the future should mean to secure the best service that an adequate compensation can command.

The school administrative authorities throughout the country are hard pressed financially; there is a tremendous increase in the enrollment, an urgent demand for more school seating, and at the same time a public demand for a lower tax rate, but, in no instance is there a thought of reducing teachers' salaries. This new attitude should prove gratifying to the teaching forces and give them an added impetus to contribute their best.

THE BUREAU STILL DOING BUSINESS.

The propaganda efforts of the past few years for a Department of Education, with a Secretary in the President's cabinet, have apparently had the tendency to obscure temporarily the existing Bureau of Education.

In striving for something which has seemed to some people more desirable than that which really exists, there is a disposition to minimize and forget an agency which does exist and which functions with the same efficiency that it always has.

The Bureau of Education at Washington is alive and active. It is rendering the same splendid service to the country that it has since its establishment. It may not enjoy the lustre and charm of a Dr. Wm. T. Harris or the championship of a P. P. Claxton, but the bureau is stronger, more active and more efficient than it has ever been in its history. Dr. Tigert is a new man—in some respects perhaps, an unknown man—but he is the guiding head who protects and promotes its standards of service. He may not edit textbooks or make many speeches but he directs the bureau and its labors with a firm and safe hand.

The school public of the nation should continue to support the Bureau in its laudable purpose and avail itself of its services as freely as it always has. Certainly, in the effort to create a Department of Education or a Department of Public Welfare there should be no disposition to minimize or ignore the Bureau of Education which still constitutes as it always has the great national clearing house for the best educational thought and effort of the day.

We are not inclined here to predict that the Bureau will, or will not, be elevated into a department of the national government. When public sentiment is convinced that the change is necessary as well as desirable, it will be made. The government may ignore agitators and self-constituted champions, but it will heed public sentiment that is soundly based and authoritatively voiced.

In the meantime it should behoove the educators of the land to back up the Bureau, and the men behind it, and encourage it towards maintaining the highest standard of efficiency. It is the purpose of the Bureau to render service, and the duty of the school public to avail itself of that service.

SCHOOLHOUSE CONSTRUCTION SEASON.

Outdoor construction labors in the central and northern sections of the country are deemed seasonal. It has been the custom to suspend operations during the frosty winter months, because workmen cannot be exposed to the elements and certain materials are affected. Thus, buildings are usually planned during winter months, construction labors are begun in the

spring and completion is looked for during the autumn months.

But, construction labors have made tremendous strides in recent years. Those competent to speak here hold that outdoor construction work, as applied to buildings, is no longer necessarily a seasonal task, that human ingenuity has overcome many of the difficulties encountered through unfavorable temperature.

Horace Herr, editor of the *American Contractor*, holds that practically all construction labors can be successfully pursued during the winter months. He says: "We must get out of the habit of thinking that building is a seasonal affair. That any industry should attempt to absorb and distribute over a period of five or seven months which naturally should be spread over twelve months, is pure folly. The practice of doing so in the construction industry, as a result of the habit that the public has been allowed to form without opposition, is one of the contributory causes of the high cost of building.

With the recent shortage in school buildings it is incumbent upon school boards to satisfy themselves that they can enter upon construction operations regardless of the seasons of the year and thus ensure both expedition and economy.

SECURING LAND FOR SCHOOL BUILDINGS.

The city of Lawrence, Massachusetts, proceeded recently to secure a site for the location of a new high school. The site chosen belonged to eight different persons. They were asked to submit figures at which they were willing to sell their property.

Their figures aggregated the sum of \$116,800. The assessed valuation of the eight properties was \$27,830. The city council, after much deliberation, agreed to pay the owners \$79,000.

These figures would go to show that the owners asked more than four times, and that the city council paid nearly three times more than the assessed value of the property. Whether or not an extortionate price was paid depends upon the selling value rather than upon the assessed valuation of the property. It is, therefore, not within our province to say whether the right price was paid or not.

The incident calls to mind, however, the fact that the exaction of extortionate prices for lands needed by schoolhouses is not exceptional. It usually happens that when a piece of property is needed for public purposes its value instantly rises. The land speculator promptly wedges himself between the prospective buyer and seller.

The remedy here is found in condemnation laws which are not only just but expeditious as well. The location of schoolhouses is an important matter. Convenience of access is the one essential factor that cannot be ignored. The center of school population, present and future, must determine the location of a schoolhouse.

Where the laws governing the purchase of school lands by condemnation or seizure are cumbersome or insufficient, new laws or the amendment of old laws must be secured.

New York City was for many years troubled in securing school sites. The law invited vexatious delays and costly adjustments. A new law was provided whereby a site was secured promptly and the construction of a schoolhouse could proceed without delay, leaving the adjustment of price consideration to the courts.

A CAUSE OF PROFESSIONAL MORALITY.

Why do teachers leave the profession? Is it entirely a question of pay, or of unfavorable working conditions? We hardly think so. Rather it seems to us to be the fear of losing their ability to associate with other people in the normal, carefree manner that causes many

young men and women to seek other lines of activity. This view of the situation is thus held by the Boston Herald:

Almost every teaching staff contains one or more sufferers, not from occupational disease, for the profession has none, but from what is no less distressing—an occupational loss of charm and social balance. Everybody knows the type: the man or woman who is mere school teacher twenty-four hours in the day, Sundays and holidays included—over-conscientious, over-precise, caring more for pronunciations than for thought, less for results than for rule, prim and stiff, fussy and dogmatic. Although this uncomfortable type is, of course, the exception, it is so pronounced that not a few observers take it for the usual outcome of continued teaching. With the boys and girls themselves, the peculiarities of such a narrowed man or woman too often pass for the very badges and credentials of the teacher's calling.

Not far from Boston are schools in which the teachers' meetings could well be adjourned every other time for an hour of required dancing or free romping in games on the gymnasium floor. All about us are hundreds of teachers and thousands of pupils who miss half the good of their schooling because they do not see that the relation of teacher and pupil ought normally to be as frank and kindly and spontaneous as the relation of a coach and his crew or of an Anzac captain and his men. Our most admirable schools are just those in which these human relations best hold their own against mechanical systems.

Superintendents and principals owe it not only to their present staffs, but to the future, to safeguard their teachers one by one against professional desiccation.

CHATS DURING RECESS.

At Billings, Montana, a school board member sold the lumber for a new schoolhouse, and now he has been asked to resign. What's the matter? Was the lumber full of knot holes?

"Classes in matrimony should be established in the churches instead of the public schools" is a statement credited to the new president of the Philadelphia Board of Education. Here is a chance for some experienced "spooner" with religious rather than education leanings.

"What ails the American schools?" asks the Chicago Daily News. That's something the N. E. A. has for fifty years been trying to find out. Perhaps, Dr. Tigert can tell. He is the newest man on the job.

"To improve the breed—mentally, ethically, physically—and do it as all-inclusively as circumstances will allow, is the mission of higher learning," according to President Hopkins of Dartmouth. By gum! That's some job! The common school fellows ought to be glad that they have nothing like that to bother them.

If we could grapple with the whole child situation for one generation, our public health, our economic efficiency, the moral character, sanity and stability of our people would advance three generations in one.—Herbert Hoover.

As Told in Newspaper Headings.

The following dozen headings taken at random from the daily newspapers give a complete picture of the school status of the country at large:

Pruning the School Budget—New Haven, Conn.
Real Economy Demanded—Bellingham, Wash.
Afraid of the Tax Rate—Clinton, Mass.
More Money Essential—New Britain, Conn.
Taxpayers Want More Cuts—Seattle, Wash.
School Expenses will be Slit—Hoquiam, Wash.
Cutting Building Costs—Whitingsville, Mass.
Seat Shortage Grows Worse—New York City.
Tremendous Increase in Enrollment—Haverhill, Mass.
School Buildings Cheaper—Liverpool, Ohio.
Teachers' Pay Cannot be Reduced—Milwaukee.

A Spiral Program for Upper Grades

Martin A. Seymour, District Principal,
Brockton, Mass.

This program is designed for departmental work in the seventh and eighth grades, and has been used during the past four years with excellent results. It can easily be adjusted to fit

the needs of any school regardless of the number of classes, length of school day, or length of the recitation period.

A brief study of the accompanying illustra-

tive program shows that it is arranged in five cycles of six days each constituting a block which covers a period of six school weeks. Each block is exactly duplicated six times which practically covers the entire school year.

During each block of recitations every pupil has equal opportunities, each sharing the advantages and disadvantages arising from the time of day of each recitation and interruptions by special teachers.

This tentative program presupposes that we have three seventh and three eighth grades. During the first cycle of six days each class will have recited every period in the day in every subject, barring interruptions by special teachers, and when 8A loses its arithmetic lesson, for instance, because the weekly lesson in manual arts happens to come at that time, the other five classes will each lose a lesson in arithmetic because of the same interruptions before 8A is obliged to omit arithmetic for the second time, thus equalizing all losses or gains, as the case may be, in every block of six weeks.

If by necessity some periods are longer than others, this advantage or disadvantage is also equalized in the same manner, and what applies to one regular subject or one special subject, is applicable to all.

The superintendent often finds it necessary to change the schedule of the special teachers during the school year. When the usual set program is used in the different schools, this, too, must be altered to meet these conditions. This form of program anticipates all possible changes when it is first incorporated, as it automatically provides for any interruption which may arise.

The spiral program may at first seem difficult to arrange, and confusing to both pupils and teachers in its application, but after several years' usage of the ordinary program, I am convinced that this form is superior from practically every angle, and I heartily commend it to any one interested in program-making where departmental work is in use.

The body of the program may remain unchanged from year to year, (unless the curriculum is materially changed by school officials) the dates which are appended, only, having to be changed.

Vacations and holidays should necessarily be taken into account when appending the dates.

The above program is made on the one session plan, with forty minute recitation periods, and three minutes between each for changing classes.

NEWS OF SCHOOL OFFICIALS.

—Mr. Perry L. Harned of Clarksville, Tenn., has been appointed chairman of the State Board of education. Mr. Harned was formerly supervisor of elementary schools for the state.

—Mr. Edwin M. Gee has been appointed superintendent of buildings for the Toledo city schools.

—Supt. Berlin W. Tinker of Waterbury, Conn., will during the present school year, observe the twenty-fifth anniversary of his appointment to the Waterbury school superintendency. Supt. Tinker plans to observe the event by the reading of a special report of the work carried on in the schools.

—Mrs. Cecil White Flemming, Supervisor of Educational Measurements in the Wisconsin Department of Public Instruction, since 1917, will spend the current year in graduate study at Teachers College, Columbia University. "Educational Progress in Wisconsin," a report on educational conditions in the state for 1918-1920 of which Mrs. Flemming is editor and joint author has just appeared.

—H. D. Fillers, who for eight years was superintendent of the schools at Bonham, Texas, has been elected superintendent at Corsicana, at a salary of \$4,000.

Program 1
WednesdaySept. 7
ThursdaySept. 15
FridaySept. 23
MondayOct. 3
TuesdayOct. 11

Program 2
ThursdaySept. 8
FridaySept. 16
MondaySept. 26
TuesdayOct. 4
ThursdayOct. 13

Program 3
FridaySept. 9
MondaySept. 19
TuesdaySept. 27
WednesdayOct. 5
FridayOct. 14

Program 4
MondaySept. 12
TuesdaySept. 20
WednesdaySept. 28
ThursdayOct. 6
MondayOct. 17

Program 5
TuesdaySept. 13
WednesdaySept. 21
ThursdaySept. 29
FridayOct. 7
TuesdayOct. 18

Program 6
WednesdaySept. 14
ThursdaySept. 22
FridaySept. 30
MondayOct. 10
WednesdayOct. 19

Time	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6
8:00- 8:05	Opening Exercises					
8:08- 8:48	8A	8B	8C	7A	7B	7C
8:51- 9:31	7C	8A	8B	8C	7A	7B
9:34-10:14	7B	7C	8A	8B	8C	7A
10:17-10:32	Recess					
10:35-11:15	7A	7B	7C	8A	8B	8C
11:18-11:58	8C	7A	7B	7C	8A	8B
12:01-12:11	Gymnastics					
12:11-12:51	8B	8C	7A	7B	7C	8A
12:45- 1:00	Closing					
8:00- 8:05	Opening Exercises					
8:08- 8:48	7C	8A	8B	8C	7A	7B
8:51- 9:31	7B	7C	8A	8B	8C	7A
9:34-10:14	7A	7B	7C	8A	8B	8C
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12:01-12:11	Gymnastics					
12:11-12:51	7A	7B	7C	8A	8B	8C
12:45- 1:00	Closing					
8:00- 8:05	Opening Exercises					
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8:51- 9:31	8A	8B	8C	7A	7B	7C
9:34-10:14	7C	8A	8B	8C	7A	7B
10:17-10:32	Recess					
10:35-11:15	7B	7C	8A	8B	8C	7A
11:18-11:58	7A	7B	7C	8A	8B	8C
12:01-12:11	Gymnastics					
12:11-12:54	8C	7A	7B	7C	8A	8B
12:54- 1:00	Closing					

Reduced Car Fare For School Children

Bertha Y. Hebb

An agency that is making itself known in the cause of education is that of the street car company, for, according to recent reports, this corporation is materially lessening the rate for the transportation of school children in many parts of the country. The movement has come about in many instances through the voluntary action of the car companies themselves; in others, upon request of the boards of education or the city superintendents of schools; and in still others by agreement between the company and the city government.

Forty-five of the larger cities are known to be possessors of these public-spirited companies. In 22 of these cities the rate for school children has been reduced to one-half the regular fare; in eleven it is a little less than one-half; in one city, Pasadena, Calif., the most generous that has been observed, the rate is only one-third of the regular fare. In the remaining cities the rate varies.

The following is a list of the cities granting these special reductions, together with full rate fare and the rate for school children:

	Cents.	Cents.
	Full rate Fare.	Rate for School Children.
Alabama:		
Birmingham	6	2½
California:		
Pasadena	6	2
Sacramento, San Diego, San Francisco	5	2½
Connecticut:		
Hartford, New Britain, New Haven. 10		5
Illinois:		
Joliet	10	5
Rockford	7	2½
Springfield	7	3½
Iowa:		
Sioux City	6	5
Kentucky:		
Louisville	6	2½
Kansas:		
Kansas City	8	4
Maine:		
Portland	10	5
Michigan:		
Saginaw	7	5
Nebraska:		
Lincoln	7	3 4/7
Omaha	7	5, high school; 3, under 12 yrs.
North Dakota:		
Fargo	7	5
New Hampshire:		
Manchester	8	4
Nashua	10	4
New Jersey:		
E. Orange, Elizabeth, Newark, Passaic	7	3
Paterson	7	3½
New York:		
Albany	7	3½
Troy	7	3
Ohio:		
Youngstown	9	3½
Oklahoma:		
Muskogee	8	4, under 16 yrs. of age.
Oklahoma City...	7	5, under 15 yrs. of age.
Tulsa	5	2½
Oregon:		
Portland	8	4
Rhode Island:		
Newport	10	5
Texas:		
Dallas	6	3
Ft. Worth	7	3½
San Antonio	8	4

Utah:

Salt Lake City...	7	4
Ogden	5	2½

Virginia:

Richmond	6	2½
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Washington:

Seattle	6¼	3
Spokane	6	4

West Virginia:

Wheeling	5	3½
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Wisconsin:

La Crosse	7	5
Madison	6	5

In addition to the foregoing cities, where the action regarding reduced rates for school children has come directly through the street car companies, there are many cities in which special rates have been established by state law. In Massachusetts a law was passed in 1910 to the effect that every street car company in the state should reduce its rate for the transportation of school children to one-half the regular fare. In 1916 Louisiana passed a law which provided that "in franchises hereafter granted to street car lines and interurban railways, except in the parish of Orleans, provision shall be made for reduced fares for school children," the fare not to exceed three-fifths of the regular rate.

—Waltham, Mass. The high school day has been lengthened fifteen minutes, with sessions from 8 o'clock to 1:45 o'clock. A thirty-minute lunch period is provided at eleven o'clock.

—Westfield, Mass. The school board proposes limiting the "no school" signal to children of the lower grades. For some years the "no school" signal has been in disuse and sessions have been conducted for pupils of all grades in stormy weather. Parents are permitted to use their discretion in sending the children to school.

—Boston, Mass. The evening schools opened with a total enrollment of 15,000 students. The evening high schools had an enrollment of 5,000 students.

—Chicago, Ill. The municipal playgrounds were taken over by the board of education on October 15th. The expense of the playgrounds will be met by a tax of three-tenths of a mill on every dollar of tax money collected.

—Indianapolis, Ind. Half day sessions will be reduced within a short time through the opening of new permanent and portable buildings and the transfer of portables now in use. Temporary structures have become necessary to meet the urgent demands for accommodations pending the completion of a sufficient number of new buildings.



SCHOOL ADMINISTRATION IN SMALLER CITIES.

The following summary of the practice in the smaller cities regarding some phases of school administration has been made by the bureau of education from about 520 replies to a questionnaire sent to 1,047 city school systems in cities between 5,000 and 30,000 population. If replies had been received from every city of this size and tabulated the probability is that the relation between the facts would be practically the same.

The superintendent of schools.—In 262, or 51.3 per cent of 510 cities reporting, the superintendent of schools is elected for a term of only one year; in 28 for two years; in 81 for three years; in 88 for four years; in 18 for five years; in two for six years, and in 31 on tenure.

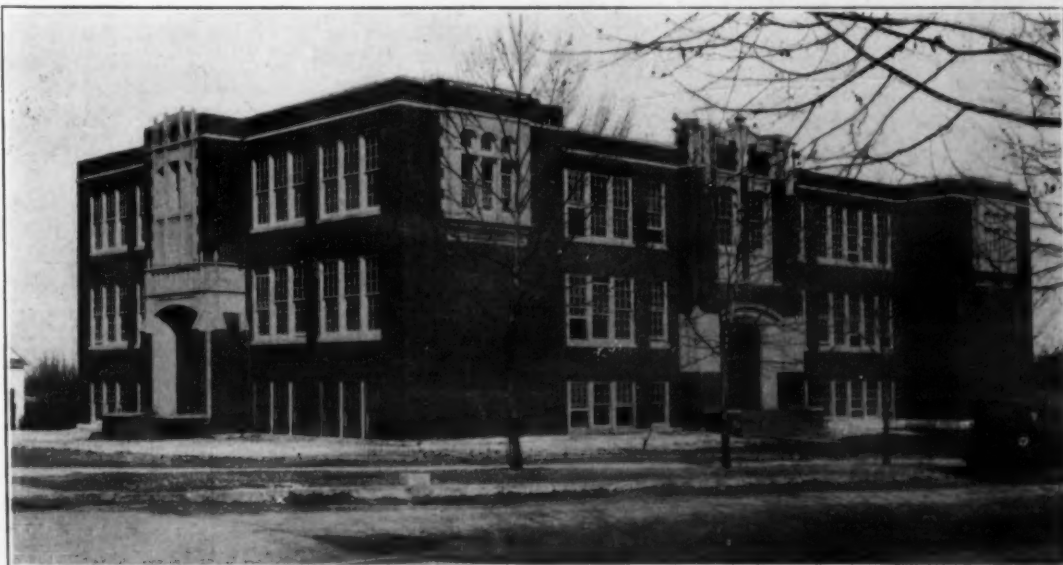
Four hundred and eighty-three, or 93.6 per cent, of 516 superintendents reporting nominate teachers—228 to a teachers' committee and 255 directly to the school board. Four hundred and eighty-five, or 93.9 per cent recommend textbooks.

Four hundred and forty-six superintendents are provided with clerical assistance. All but two of these not having such assistance report that it is needed.

In 474 of 518 cities reporting, all other employees except the secretary of the school board are subordinate to the superintendent. In the cities where the superintendent or the superintendent's clerk does not act as school board clerk, the clerk of the board is independent of the superintendent. In 20 of the 44 cities the janitors are not subordinate to the superintendent but are responsible to a committee of the school board. In the 24 other cities the high school principal is independent of the superintendent.

Teachers.—In 320, or 61.7 per cent, of 518 cities reporting, the standard educational qualifications required for elementary teachers are four years of high school and in addition two years of normal school work. In 444, or 85.7 per cent, the standard for high school teachers is college graduation, 303 of these require some professional preparation. In 518 cities 975 teachers, or not quite two to a city, were not reelected at the close of the school term last year. In 121 of these cities teachers are elected for a probationary period of from one to three years. In 109 of these the teachers are placed on permanent tenure after serving the probationary term satisfactorily. Teachers are elected annually in all others of the 518 cities reporting and in these during the probationary period. Three hundred eighty-two, or 73.7 per cent, of the 518 cities reporting, grant teachers sick leave for from two

(Continued on Page 69)



HIGH SCHOOL, HUGO, OKLA. Jewell Hicks, Architect, Oklahoma City.

Bring Books, Music and Motion Pictures to Rural Dwellers

C. F. Fleming

Establishing cultural contact with the rural hinterland through a traveling library, motion picture machine and graphophone is a distinct step forward in educational matters. Credit is due to an enterprising schoolman, H. K. Taylor of Texas Woman's College and H. M. Means, county agricultural agent of Tarrant County, Texas, for the inception and execution of the innovation. An enlightened Fort Worth Chamber of Commerce smoothed the financial path by expending the sum of \$1,500 for a motor truck and library fitted into equipment built for rough riding over country roads. The project is known as the Tarrant County Community Library and Entertainment Cycle and is directly supported by the communities it serves. In other words, Messrs. Taylor and Means had no trouble in "selling" twelve rural communities adjacent to Fort Worth the cycle plan of education and entertainment. In less than ten days the sum of \$2,500 was raised or an average of \$200 to each of the twelve communities. Public-spirited citizens also came forward with contributions toward the purchase of useful books.

The cycle has been in operation for two months and the attendance at the rural entertainments given to date has averaged some 300 persons at each center or a total of about 12,000. Of course, the same audiences usually attend in each locality each of the successive evenings in which the library cycle is the attraction. Before the cycle came there was no amusement in these remote districts and the country folks stayed at home or else went to the nearest city or town to attend picture shows with more or less baneful influences upon the growing generation. All this is changed now through the fulfillment of a dream which came to Dr. Taylor shortly before the war. It could not be put into execution till now, however, but it was a success from the start.

Young Girls Give Program.

Young ladies, who are students of Texas Woman's College at Fort Worth, are entrusted with arrangement of the program for the various evening entertainments given through the Community Cycle. Dr. Taylor finds this an excellent opportunity for the girls to apply in actual practice the courses taught in school fitting them for sociological work. They accompany the traveling library in automobiles, going to a different school center six nights a week. The meetings are advertised in the country newspapers and through posters and also are announced at the rural schools. It was at first thought to reach only the school children but the attraction has interested also the grown-ups, who flock to the entertainments, often traveling

long distances.

Usually the rural district school or the local church is used for the entertainment. The graphophone is played according to a regular program of wholesome music, including choruses in which the entire audience joins, and special numbers arranged by the young ladies. Community singing or "sing-songs" are stimulated by this nightly entertainment and are a means of holding the young people at home and keeping them interested in things worth while. Sometimes a lecture is fitted into the program, dealing with some timely or important subject by one competent to address the rural dwellers.

Young Interested in Books.

When the motor library arrives at a rural school where the evening's entertainment is to be given the young folks are on hand early to select books from the shelves. The reading matter distributed is carefully selected and censored to insure its wholesome character. A card index system is kept by the traveling librarian who holds each child responsible for the book taken. Every week new books can be chosen and the old ones either must be returned or are renewed.

The book most in demand among the young girls are cook books, of which there is a scarcity in the rural districts. Several standard works on culinary science have been added to supply the urgent demand. Among the boys' books mechanical designs and construction are in greatest demand at present, although both sexes eagerly read the latest novels which the censors consider suited to their charges. The lack of good books in the average farmer's home is pitiful. There is scarcely anything to read besides the Family Bible, an almanac or two, some patent medicine literature which clutters the rural free delivery mail, and the weekly country paper. It is no wonder that the young Texans are delighted with the Community Cycle and traveling library.

Motion Pictures Popular.

Only the best motion picture films are shown. A sheet is spread against the schoolroom wall and the room darkened. Educational films, showing how to swat the fly, rout the mosquito, clean up the premises and subjects on general hygiene are interspersed with pictures on travel, agriculture, insect control in crop production and clean stories. If there is a particular crop problem affecting the Southwest a film is shown explaining the details of control work. Everything which is shown has been selected carefully with a view to improving the minds of the audience. The cycle may be adopted by other communities in other parts of Texas and the South.



Schools and School Districts.

It is competent for the Legislature in passing an act for the creation of community consolidated school districts to adopt other portions of the school law.—People v. Exton, 131 N. E. 275, Ill.

Under the Illinois school law, 84a-84g, providing for the consolidation of school districts of compact and contiguous territory bounded by school district lines, a consolidated district composed of two comparatively large tracts of land more than three miles apart, connected by comparatively narrow strip of land, leaving a space three miles or more between the two tracts, is held not "compact" territory so as to comply with the statute; "compact" meaning closely and firmly united.—People v. Moyer, 131 N. E. 280, Ill.

Where polls were closed before time provided by law in an election under the South Dakota revised code 1919, 7571, for the consolidation of school districts, and a single vote against consolidation would have changed the result of the election, which was in favor of consolidation, and one qualified elector, who would have voted against consolidation, was prevented from voting because of the premature closing of the polls, the election must be held illegal.—In re Consolidation of School Districts in Troy and Waverly Townships, 183 N. W. 122, S. D.

District Property, Contracts, and Liabilities.

A rural high school district and an ordinary school district, formed in part from the same territory, each having statutory authority to erect a schoolhouse for its own use, cannot without further legislation unite in the construction of a single building for their joint use.—Stewart v. Gish, 198 P. 259, Kans.

The Missouri constitution, art. 10, 11, limiting the annual tax rate, but providing that the limit may be exceeded for the erection of buildings, does not authorize an excess in the rate limit for repairing and furnishing buildings—Harrington v. Hopkins, 231 S. W. 263, Mo.

Pupils, and Conduct and Discipline of Schools.

Under the Massachusetts revised laws, c. 44, 6, as amended by statutes of 1918, c. 117 (Gen. Laws, c. 76, 15), authorizing the admission of unvaccinated children to the public schools on presentation of the certificate required by Rev. Laws, c. 75, 139, as amended by St. 1902, c. 190, 2, and chapter 544, 10 (Gen. Laws, c. 111, 183), the exemption when such certificate is furnished does not cover absolutely the entire period of the child's attendance and the certificate is limited to the period during which the child's physical condition is such that, in the physician's opinion, he is an unfit subject for vaccination.—Spofford v. Carlton, 131 N. E. 314, Mass.

(Continued on Page 60)



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THE NORMAL STUDENTS AND THE DIRECTORS OF THE SCHOOL READING AND ENTERTAINMENT CIRCUIT.

**The Victrola
serves
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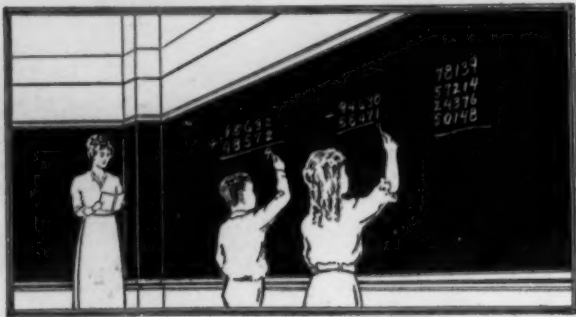
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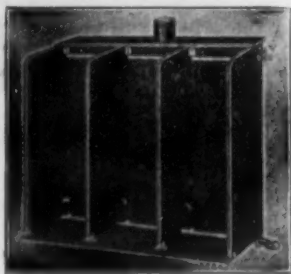
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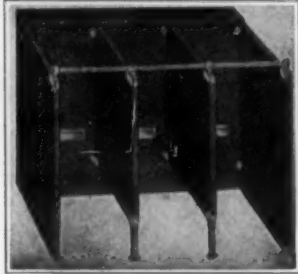
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from our quarries represent the acme of economy and educational efficiency. They require no upkeep, while artificial boards must be resurfaced, repaired and replaced regularly. In comparison, the word "economy" is defined in its truest sense. Slate being non-porous does not absorb anything, so cannot disintegrate. It is finished with a beautiful, velvet smooth surface that does not become gray with age or use; that makes writing a pleasure and reading a relief to the eyes of the students and teachers. That is why our Natural Slate Blackboards combine the utmost efficiency with the utmost of economy.

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Under the Massachusetts revised laws, c. 42, 27, G. L. c. 71, 37, giving school committees general charge and superintendence of the public schools, a regulation of a school committee requiring every pupil having a physician's certificate stating that he is not a fit subject for vaccination to renew such certificate once in two months is not as a matter of law, so unreasonable or arbitrary as to be invalid or discriminatory.—*Spofford v. Carlton*, 131 N. E. 314, Mass.

The Massachusetts revised laws, c. 44, 3, as amended by statutes of 1911, c. 268, giving every child the right to attend the public schools of the city or town in which his parent or guardian has a legal residence, etc., subject to reasonable regulations by the school committee, must be read in connection with chapter 44, 6, as amended, relative to the vaccination of school children as a condition of attendance.—*Spofford v. Carlton*, 131 N. E. 314, Mass.

One who entered into an entire contract with the board of education for conveyance of pupils to and from school during the school year of eight and one-half months, at a stipulated compensation payable monthly, is held entitled to such compensation during suspension of the schools by the board of education on the direction of the board of health, there being no provision in the contract relative to such contingency, and it appearing that the suspension was temporary, and that the employee was required to and did continue ready and willing to perform his duties.—*Montgomery v. Board of Education of Liberty Tp., Union County*, 131 N. E. 497, Ohio.

Pupils.

The school board of West New York, N. J., has provided automobile transportation for crippled children. The service has been provided as a convenience for children who are unable to attend school because of lack of proper braces and transportation.

Under the plan, the medical inspector examines the children and the work of the nurse begins. Visits are made to the homes and an effort made

to have the conditions corrected, either thru the family physician or the dispensary or clinic. The work with the children outside of the schoolroom is carefully followed up in the schools. They are given nourishing lunches, stated rest periods are required and attention is given to the teeth. The work is next carried into the home and the mother is urged to provide the most wholesome food in order that the child may be kept up to the normal in health. As a result of the nurses' efforts, some very good records have been turned in from three open air schools.

LEGAL NOTES.

Exclusion of Unvaccinated Children.

Mandatory vaccination of children in attendance in public schools has caused considerable friction at times between the parents and the school authorities. Where a parent objects to vaccination and refuses to permit a child to be vaccinated, the case usually results in the exclusion of the child from school. A case of this character which was recently brought before the commissioner of education of the city of Newark, N. J., was disposed of by the commissioner in the following decision:

The question at issue resolves itself into the meaning of the New Jersey law. Does it give a board of education discretionary power, or is it mandatory? If it gives discretionary power, then a board of education becomes the judge of the merits of vaccination as a preventive of smallpox. It follows that the board should give a hearing to the complainant, in which he should be allowed to give not only his opinion, but also whatever of expert medical opinion he may bring to bear in the case. The opposition would bring its expert opinion also.

If the statute is mandatory, then the board of education has no power to pass on the question of the efficacy of vaccination as a preventive of smallpox. Neither has it power to pass upon the dangers that may follow in case of its performance.

Plainly it is a duty that is imposed on the board of education by the statute, in which both public and private persons have a deep interest.

It is also plain that the statute does not confer a favor but it does impose a duty. It is equally plain that a public interest is involved. Besides, to interpret the word "may" as only permissive, will be to render the statute ineffective and defeat the very object to be attained, namely, the protection of the children and the community at large from the ravages of a loathsome disease.

It is plain that the statute relating to vaccination is mandatory—hence a board cannot consider the question raised by the appellant, namely the efficacy of vaccination as a preventive.

Further, the appellant, not seeking exemption from vaccination by reason of physical unfitness, but because of the personal opinion held by the father on the question of efficacy and danger of vaccination, is lawfully excluded from school.

—The Supreme court of Tennessee will test the legality of the 1921 act of the state legislature abolishing the county high school boards, county boards of education, and district advisory boards in the several counties, a majority of which went out of existence in July.

—Needed school legislation for the state of Nebraska was the subject for discussion at the recent round-table conference of county superintendents of the state held at Norfolk. A committee of three is to be appointed to rewrite the school laws, eliminating obsolete laws, amending conflicting laws, and making such needed revisions as will remove doubt or question in regard to the meaning of the laws of the state.

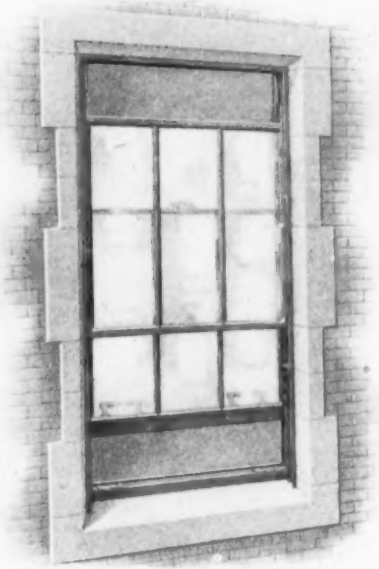
It was suggested that each county superintendent note needed changes in the laws and present his recommendations to the legislative committee in order that the changes and revisions may be presented to the next legislature.

—The Superior Court in Seattle, Wash., has decided that the school board cannot exact fees for attendance at the local high school. The fee was intended to cover the use of supplies in certain departments. The action was based upon the economy policy which the board is pursuing with some vigor.

(Continued on Page 64)

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All the desirable features of modern school practice at moderate cost.

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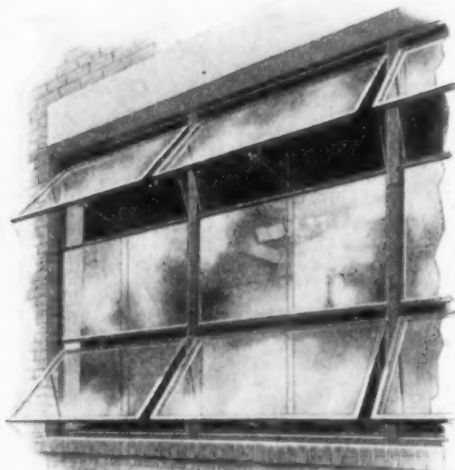
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Easy to operate---Cannot swell, shrink or warp. Permanently close-fitting yet free-working.

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Write for special pamphlet, "*Steel Windows for Schools*," just published.



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Lupton Counterbalanced Sash

Upper and lower sash hung over one pair of pulleys, so that top and bottom openings are always equal.

Made of heavy sections: corners of sash oxy-acetylene welded. Double contacts all around: zinc weathering strips in jambs and mullions.

A finely-made, substantial sash for school buildings of the highest grade.

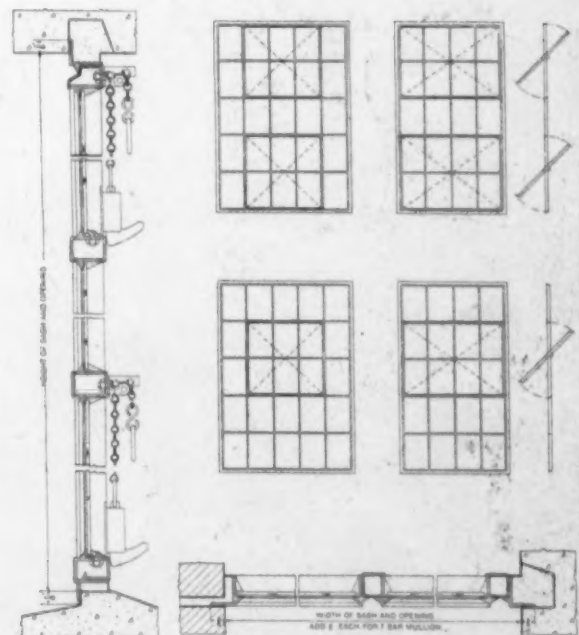
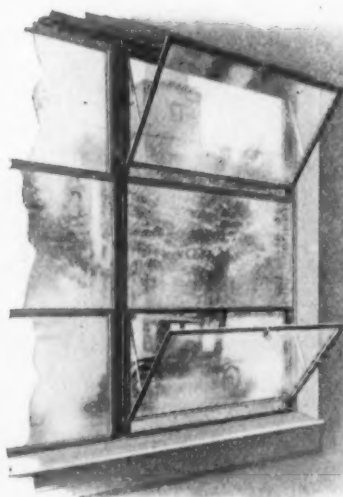
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The cheapest practicable steel sash for schools. Both upper and lower ventilators are operated by chains. Sizes are the same as for Lupton Factory Sash, 14 by 20 inch glass being preferred.

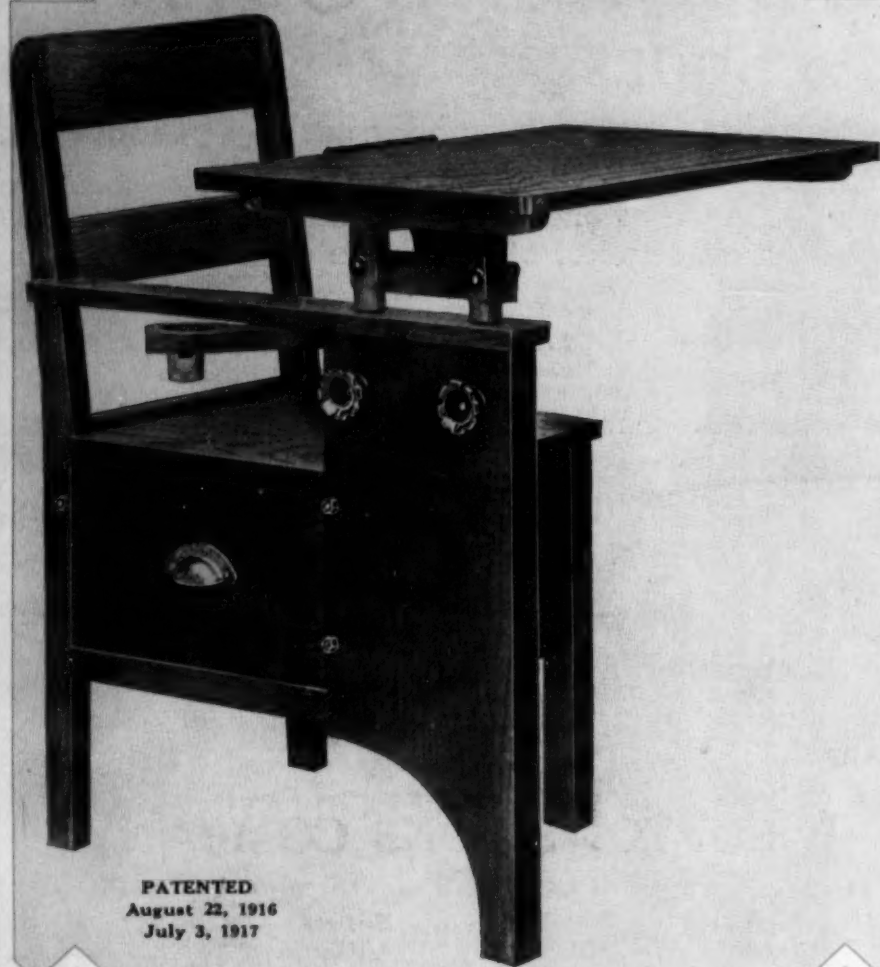


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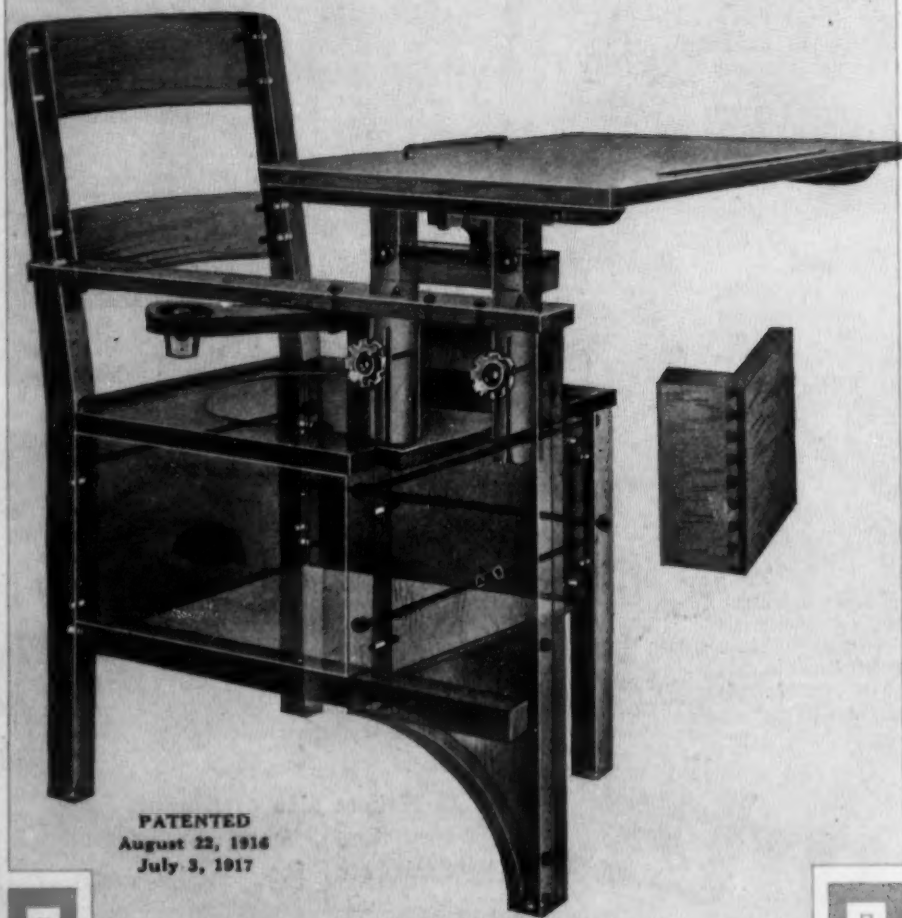
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The "Empire" Movable and Adjustable Chair Desk is permanently expressive of both quality and durability in every detail. It is hygienic, designed and exceptionally well built—each part designed to insure a maximum of comfort, life and service with the utmost of economy and efficiency in use. And because of its superior strength of construction, its exclusive adjustments and unequalled appearance, the "Empire" Movable and Adjustable Chair Desk is absolutely essential to efficient and progressive teaching.

The X-Ray illustration shows in detail its superior construction—the steel reinforcing tie rods—spiral dowels—the heavy wooden brace under the book box, which is fastened to the back post by a steel tie hook and mortised into the pedestal in front—the lifting and tilting desk top—the simplicity of adjustments and numerous other features—all contributing factors to its lasting qualities and extreme durability.

The "Empire" Movable and Adjustable Chair Desk is a feature of the "Empire" Movable and Adjustable Chair Desk. This is easily seen in the Desk's design and construction.

Any teacher with a strong sense of duty will find the "Empire" Movable and Adjustable Chair Desk a most valuable asset to their classroom. It is a must for every school and every teacher.

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This desk top can also be easily removed and as easily replaced—making the "Empire" Chair Desk as convenient for auditorium and community use as for classroom use.

Ease of Adjustments

Any child can adjust the "Empire" Chair Desk with the utmost ease. The adjustments are strong, but very simple in construction—absolutely nothing to get out of order.

Standardize on "Empire" Movable and Adjustable Chair Desks for your schools. They are the most practical, durable and economical. They are made in six sizes to fit the various grades and have five adjustments so that each pupil may be individually fitted.

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Sound Proof Music Rooms

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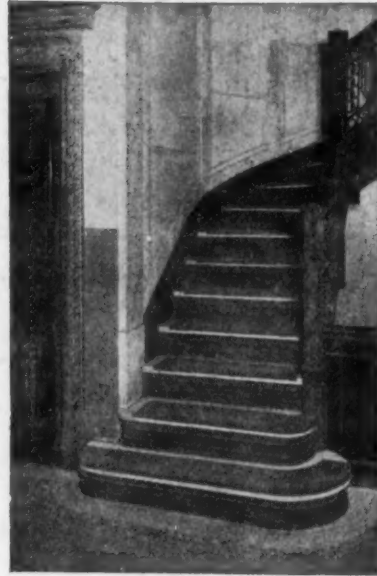
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Require Good Anti-Slip Treads

Marble, granite, slate, cement, iron and steel stair treads are notoriously unsafe. More people are killed on them than by fires and surface cars. Prevent slipping accidents. Make and keep your school stairs safe by using FERALUN Anti Slip Treads.

FERALUN are used for floor plates, trench covers, door saddles, coalhole covers, stair treads, safety treads, ramps, etc.

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Fifty Church Street, New York, N. Y.
Branches in all principal cities.

(Continued from Page 60)

—At Oklahoma City, Okla., a school board member is engaged in the book business, including the selling of school books. While the particular school board member claims that he has not profited by the sale of books to the pupils the attorney general believes that his action is against public policy.

—Mandamus proceedings were instituted against the school board of Scanton, Ia., to compel the school board to annul the appointment of a bus driver and employ another man under the soldier preference law. The plaintiff lost the case, the court holding that soldier preference could only be given where the soldier has equal or greater qualifications for the position.

Suit to prevent collection of \$53,000 in taxes in Duluth to relieve the poorer school districts of St. Louis county has been started by the Duluth Taxpayers' League composed mainly of the business men of the city.

They seek to prevent collection of eight-tenths of a mill tax on real estate property of the city on the grounds that this law which was passed at the last session of the Minnesota legislature is unconstitutional in that it is class legislation. Arguments in the case were completed on Oct. 8, and the matter has been taken under advisement by Judge H. A. Dancer of the district court.

The basis of the contention of the Taxpayers' League is that Duluth gets nothing in return for the \$53,000 it will be taxed in that this amount will be spent on schools outside of the city, and the manner in which it is to be spent will be entirely in the hands of the county superintendent of schools for whom the voters of Duluth can not cast a vote, because Duluth is an independent school district. The law passed by the legislature is applicable to St. Louis county only as counties of 400,000 square miles or over are included, and St. Louis county is the only county in the state to come within that classification.

Attorneys for the auditor who is made defendant in this suit to prevent him from assessing

property with the eight-tenths of a mill included, argue that conditions peculiar to St. Louis county make this legislation necessary. Their contention is that through concentration of wealth in only certain parts of St. Louis county, world renowned for its ore mines, that certain school districts can raise sufficient funds for school purposes with a small levy, while poorer or agricultural school districts can not do so, and must depend on more fortunate districts in the county for support.

The Federal court has recently held the federal child labor law and the Owen-Keating Child Labor Law unconstitutional. The opinion was rendered in the case of the Vivian Spinning Mills of Cherryvale, N. C. The company had asked a restraining order against the internal revenue collector, preventing the enforcement of a federal tax of ten per cent on profits derived from products on which child labor was employed.

The court held that the regulation of labor is one of the powers of the state and may not be delegated to the federal government. State child labor laws are adequate to care for the situation and provide a penalty, not a tax, as is proposed by the act of congress. The attempt of the government to regulate labor within the state is a usurpation of authority, in the opinion of the court, and a violation of the sovereign rights of the state.

An order has been issued permanently restraining the collection of the tax from the company.

PERSONAL NEWS OF SUPERINTENDENTS.

—Mr. C. M. Bair of Redfield, S. D., has been elected superintendent of schools at Berlin, N. H.

—Mr. A. B. Kellogg has been appointed as superintendent of schools at Claremont, N. H.

—Mr. C. R. Stacy has been appointed superintendent of schools at West Boylston, Mass.

—Supt. L. Leland Dudley of Johnston, R. I., has been appointed clerk of the school board. The appointment is in line with a policy in force for the past nine years.

—Mrs. Sarah Webb Maury, originator and

director of the penny lunch plan in the schools of Louisville, Ky., died at her home after a short illness, aged 60 years.

—Mr. Elmer G. McCullum has been appointed superintendent of schools at Jeffersonville, Ind. Mr. McCullum is a graduate of Indiana University and has completed two courses at the Terre Haute Normal School. He has been identified with the schools of Indiana for fifteen years, and for the past seven years has served as principal or superintendent of schools.

—Mr. Ira S. Brisner of Elizabethtown, Del., has been elected superintendent of schools at Lewes.

—Mr. H. E. Wilkens of Cloquet, Minn., has been elected superintendent of schools at Washburn, Wis. Mr. Wilkens is a graduate of Carroll and Lawrence Colleges and has been in school work for the past thirteen years.

—Mr. Ralph S. Dewey, principal of the high school at Kane, Pa., has been elected superintendent of schools to succeed H. O. Dietrich resigned.

—Mr. Edgar L. Willard of Natick, Mass., has been elected superintendent of schools at Canton.

—Mr. J. W. McClymonds has been offered the assistant superintendency at Oakland, Calif., succeeding the late George W. Frick.

—Mr. Merritt D. Chittenden of Burlington, Vt., has been tendered the position of State Supervisor of High Schools for Vermont. Mr. Chittenden is a graduate of the University of Vermont and has completed special courses at the Harvard Summer School and at Teachers College, Columbia University.

—Mr. Merle A. Sturtevant of Brandon, Vt., has been elected superintendent of schools at Barre, Mass., at a salary of \$2,700 a year.

—Mr. H. O. Hutchinson, state supervisor of Junior high schools for Vermont, has accepted the superintendency at Elmira, N. Y., at an increase of \$2,500 in salary.

—Supt. E. K. Barden of Livingston, Tex., has been reelected for the ensuing school year, at an increase of 35 per cent in salary.



Protection and Privacy for — — Schools and Educational Institutions

Cyclone Fence ends all outside annoyances that interfere with the successful administration of educational institutions.

Bars would-be intruders; prevents interference with students; aids in maintaining discipline; makes possible the control of all coming and going; protects grounds, buildings and equipment against damage by vandals; safeguards students against accidents in traffic ways adjacent to school property.

Cyclone Fence is built in a variety of styles which include patterns suited to any requirement from the small ward-school ground to the most pretentious college campus.

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CYCLONE FENCE

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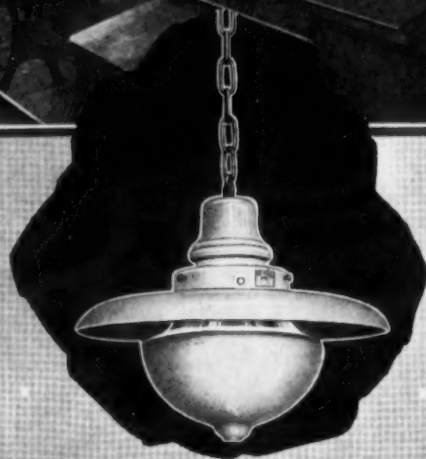
PROPERTY PROTECTION PAYS

THE LIST GROWS DAILY

In spite of the comparative building inactivity, the list of Denzar lighted schools grows daily. As many as five orders a week for Denzars to be installed in schools is not uncommon. And many of these are by no means small orders; lots of 25, 37, 47 and 75 Denzars are typical shipments. A number of schools in the smaller cities are among those recently equipped with Denzars. For instance, West Frankfort (Ill.) School bought 75; Augusta (Ill.) High School, 37; Rosedale (Miss.) Consolidated School, 45; State Normal School at Whitewater, Wis., 6; Taylorville (Ill.) School, 25; Consolidated School, Keithsburg, Ill., 11, and Elizabeth (La.) School, 10.

The illustration shows one of the classrooms of the Junior High School at Eldorado, Kansas, in which 95 Denzars and other Beardslee lighting equipment are installed. Denzar is undoubtedly the most economical and highly satisfactory school lighting unit in use today. If you wish to know more about its distinctive features, ask for Denzar literature or, better still, send us the dimensions of any school room you wish to light and we will send a sample on memorandum.

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REMOVAL OF INCOMPETENT TEACHERS.

A committee of the National Educational Association has presented an exhaustive study on the subject of the tenure of teachers in which it urges the probationary period to be followed by permanent appointment protected by state laws. On the subject of removals the report says:

"Where an employee is assured that her position belongs to her, and especially where a sympathetic public opinion makes it hard to discharge her, there is a grave possibility of an accumulation of 'deadwood,' teachers whose continued services become a distinct liability to the welfare of the community. There is no disease so dangerous as pernicious professional stagnation.

"Little, if any, definite steps have been taken to remove this deterring handicap. The law proposed by the State Teachers' Association of Ohio this year (1921) provided that the 'superintendent of public instruction shall prescribe and require such study or other means of professional growth from time to time, as a condition of indefinite tenure, as in his judgment shall seem necessary. The said requirements fixed by the superintendent of public instruction shall be the minimum required for all districts of the state, but any district shall have the right to establish higher professional requirements for continued and indefinite tenure with the consent and approval of the superintendent of public instruction.'

"This provision was objected to by the teachers and subsequently omitted from the bill.

Provides for Study One Term.

"The Tulsa, Okla., scheme employs the teacher on a yearly basis, and provides that teachers shall follow a four-year cycle during the summer months as follows: one summer to be spent in travel, one in attendance at summer school, one irregular teaching, and the fourth optional. This plan allows the teacher to work out details and does not specify what must be done in any particular year. It merely provides that these four objectives be carried out in the four-year period.

"The sabbatical year with part or full pay is another plan which will increase the length of the teaching service, broaden the viewpoint of

the teacher, increase her usual culture, health, happiness, and efficiency, and instill a new vigor and broaden her outlook in every way.

"Some cities provide the sabbatical year, including Cambridge, Mass., which gives one year absence in eleven with half pay; Boston, one year in eight with half pay; Newark, N. J., one in eleven with half pay; New Rochelle, N. Y., one year in eight with half pay; Newton, Mass., one year in eight with half pay; Richmond, Va., four and a half months after three years' service with half pay; Rochester, N. Y., one year in eight with half pay and not to exceed \$1,000.

Danger of Incompetence.

"This question, closely related with the one of insuring growth and continued improvement, can be reduced to its minimum danger through careful, exacting, yet sympathetic supervision during the probationary period. To guard against the dangers of incompetency, the period of probation should be made long enough to test the new teacher in every possible way. Conscientious, skillful supervision from the first combined with personal attention to the probationary group by the superintendent himself will help much in solving his problem. Reasonable transfers within grade, and between building should be allowed. Private conferences should be held and deficiencies frankly discussed.

"The permanent personnel will not contain a large number of stagnant teachers under such a plan.

"A record should be kept each year of the efficiency of every teacher as measured by the supervisors' analyses, records of continued study, and other evidences of growth. Efficiency tests should be given. The larger school systems might well provide teacher training facilities and teacher institutes at stated intervals. Some communities provide that teachers not maintaining the minimum standards of efficiency and in danger of becoming incompetent be placed back to a probationary status for a year before being recommended for dismissal.

"Incompetence, whether it be inefficiency, indifference, lack of co-operation, insubordination, immorality must not be long tolerated. The schools are for the education of our children, and we are working under too great a responsibility to permit deficiencies to be long endured.

Would Limit Tenure.

"If the privileges of tenure are limited to those having adequate educational preparation, coupled with care in selecting teachers from the probationary group, much of the danger will be avoided. Tenure in the elementary grades should be limited to graduates of a two-year normal school preceded by graduation from a four-year high school. A life certificate should be granted all such graduates who have two years of acceptable teaching experience. Not less than ten years of successful teaching experience should in any case be substituted for the educational requirements mentioned above. Higher standards should, of course, be required for positions of greater responsibility.

"Graduation from a four year college should be the standard for the specialized teachers of the secondary schools. National standards of certification should be adopted, with minimum requirements which would serve as a basis for tenure regulations.

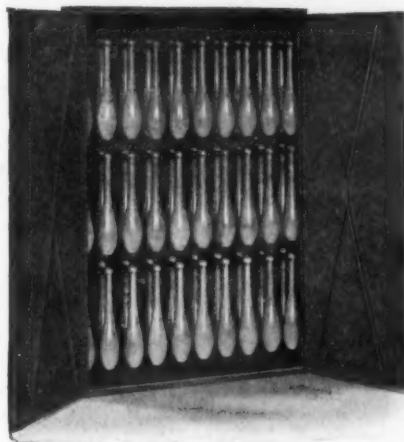
—The school board of Oklahoma City, Okla., threatens to take into the court the matter of schoolbook purchases. The publishers have threatened suit because the board refused to require children to purchase books listed by the state textbook commission. The decision was made despite the attorney general's opinion that all books listed must be bought.

—Statistics recently issued by the Superintendent's office of New York City schools show that considerable progress has been made in reducing the part-time evil in the elementary schools. This is being accomplished by the opening of a number of new schools and the placing of part-time pupils on double sessions. Increases in part-time reported in some schools is attributed to a shift from double sessions to part-time, principals maintaining that the pupils are actually getting more instruction under the part-time than under the double-session plan. Supt. W. L. Ettinger has prepared a report on part-time conditions and the method of meeting the situation, which he will present to the board of education shortly.

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One of our nine *Standard* Steel Cabinets for Clubs, Bells, Wands and Game Equipment. This cabinet accommodates thirty pairs of Clubs; made in double depth also to take sixty pairs. Mounted on casters if desired.

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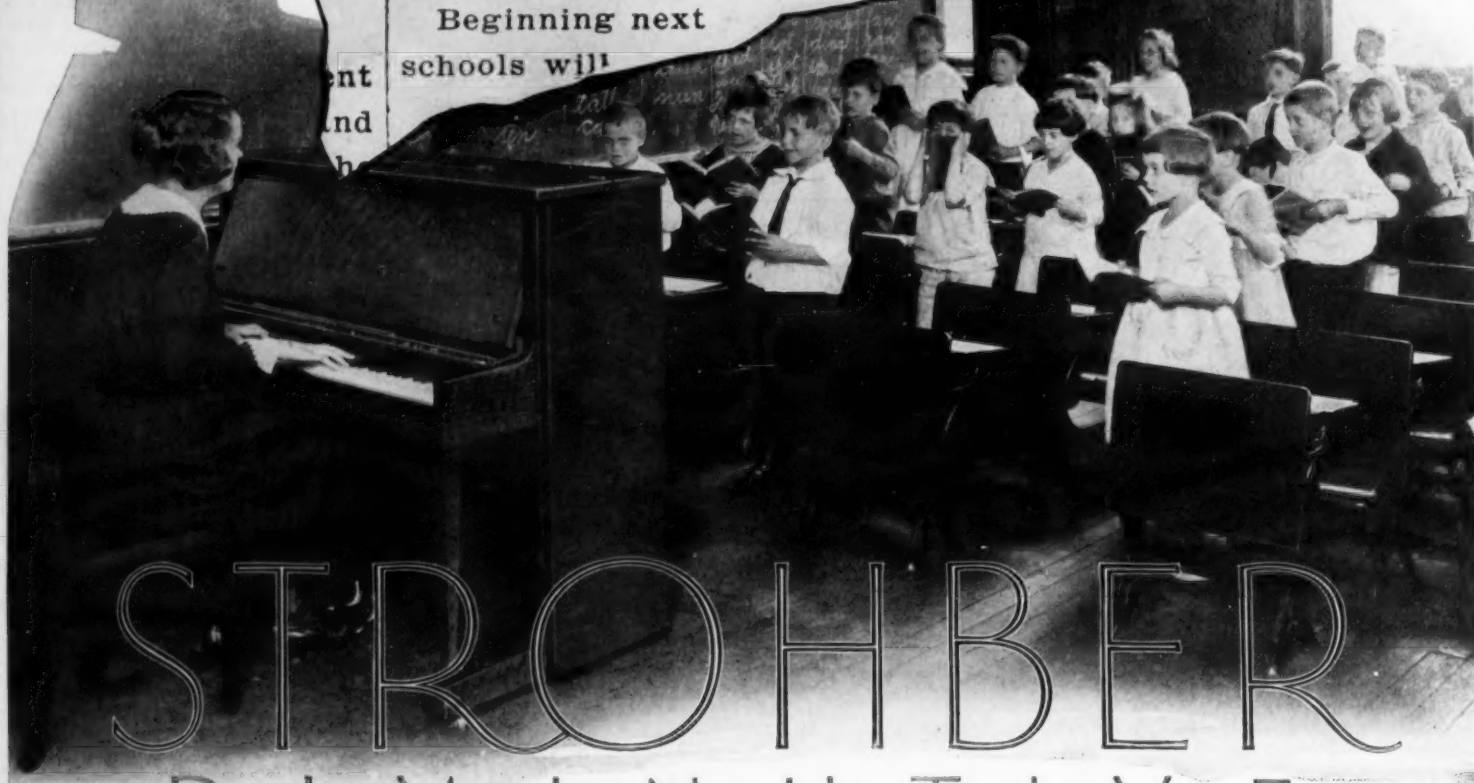
LOCKERS

FROM THE FRONT PAGE OF
THE CHICAGO TRIBUNE
SEPTEMBER 8TH

Schools

Music is just as important as the multiplication table and folk dancing is as great a spur to youthful brains as is geography, in the opinion of Frederick W. Nichols, superintendent of school district No. 76, comprising the South Evanston schools, who announced a régime for the Lincoln, Oakton, Central and Washington grade schools, last night.

Beginning next
schools will



STROHBER

D I M I N U T I V E

For Better School Music

*What can be more stimulating to the mind, soul
and imagination of a boy or girl than a song*

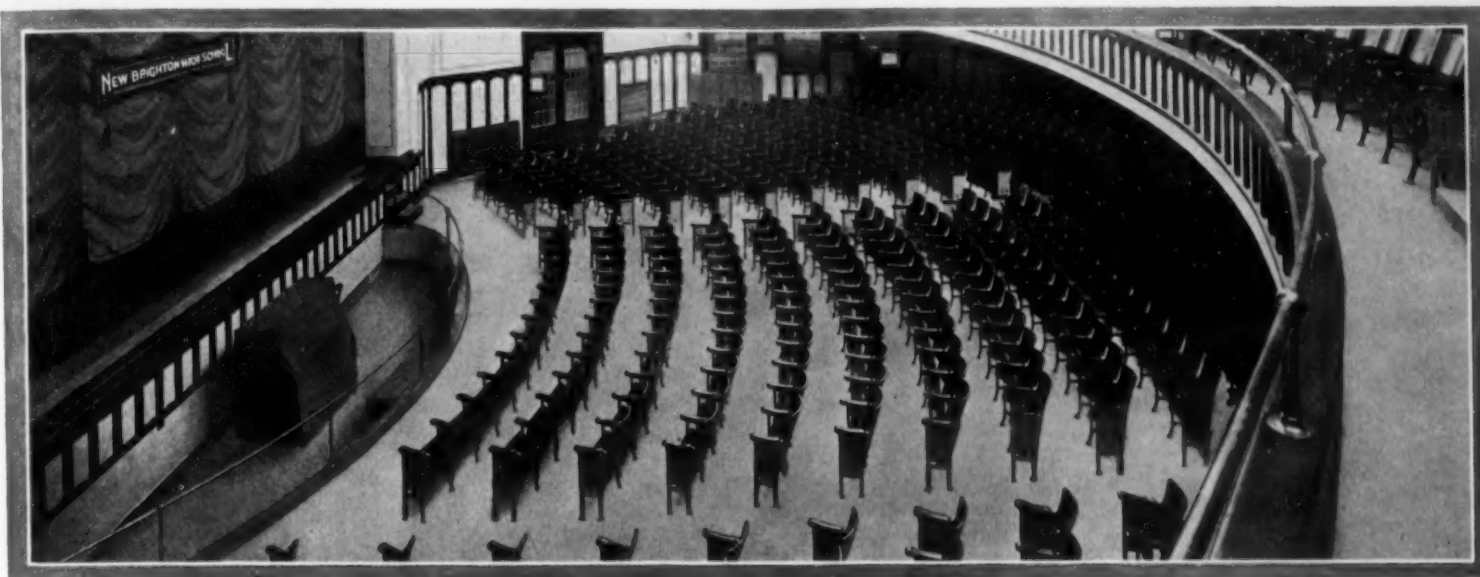
THE more advanced ideas of educators contain practical uses of music.

It is a growing tendency to "rest" children's minds with music. Music lessons are mental tonics. Growing children should not be compelled to sit in classrooms all day, cramming facts into their heads, without the pleasant interruption of music. Music is no longer a diversion, but is regarded as the scientific balance for growing minds. We want to send you our booklet on the new school piano. The smallest complete upright piano made. The full toned piano light enough in weight to be easily moved about, low enough to permit the teacher to see the class over its top.

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THE MARBLEOID COMPANY, 461 Eighth Avenue, New York

SCHOOL ADMINISTRATION IN SMALL CITIES

(Concluded from Page 57)

or three days to 30 or more. Two hundred and eighty-seven of these grant the sick leave on full pay.

Promotion of pupils.—In only 245, or 47.4 per cent, of 516 cities reporting, are pupils promoted semi-annually. 24 superintendents report that they do not promote high school pupils by subjects.

Junior high schools.—199 of 520 cities reporting have junior high schools. Only 65 of these comprise grades 7, 8, and 9. Most of the others comprise grades 7 and 8.

In 73 cities the junior high school has a building of its own, in 66 it is housed with the senior high school, and in 60 with the elementary school.

The school board.—In 417, or 80.8 per cent, of 516 cities reporting, the school board is elected by the people; in 99, or 19.2 per cent, it is appointed. Of the 99 appointive boards 32 are appointed by the mayor and 67 by the council or commission.

Of the 417 elective boards 388, or 93 per cent, are elected at large and only 29 or 7 per cent by wards.

Only 67 of these cities have school boards of more than 7 members. 61 have boards of 3, 4 of 4, 129 of 5, 96 of 6, and 151 of 7 members.

Twenty-five cities elect or appoint school board members for a term of 2 years, 293 for 3 years, 77 for 4 years, 36 for 5 years, 82 for 6 years, and 3 for 7 years. 178 of the 417 elective boards are elected at a special school election.

In 222, or 43 per cent, of the 516 cities reporting, the school budget is referred to some other body for approval. In 126 to the mayor or city council, in 30 to a board of estimate, in 51 to county officials, and in 15 to the people.

In 72 of the 222 cities the estimates were reduced last year by small amounts in some cities and by rather large amounts in others. In 47 cities the reductions were made by the mayor or council, in 11 by the board of estimate, in 14 by the county officials. No reductions were made

in the cities referring the school budget to the people.

Of 517 cities reporting on the number of standing committees of the school board, 145 report that they have no such committees, 10 report 1; 24, 2; 65, 3; 64, 4; 86, 5; 69, 6; 29, 7. The others report from 8 to 14.

In 256, or 49.6 per cent, of the cities reporting, the secretary or clerk of the school board is a member of the board; in 105, or 20.4 per cent, the superintendent of schools acts as secretary; in 44, or 8.6 per cent, the superintendent's clerk acts; and in 111, or 21.4 per cent, some other person.

AMONG BOARDS OF EDUCATION.

—Louisville, Ky. A new plan proposed for the solution of a tuition problem in the southeastern section provides that the county shall pay a pro rata of the tuition, and that the residents shall pay a sum sufficient to meet the amount of \$67.50 demanded by the board of education. The board has contended that the region in which the Belknap School is located, is not in the city and that the pupils cannot be accepted free in a city school. The residents have been forced to pay tuition for the 200 children and have also paid the county taxes.

—Washington, D. C. A committee of high school alumni has taken steps to modify the recent ruling of the board against fraternities and to permit their continuance in the schools under certain restrictions.

—Seattle, Wash. The school board is involved in a controversy over the question of fees for certain studies in the high school. A temporary court order restrains the board from exacting fees from high school students pending a hearing of the case in the Superior Court. It was charged by a patron that one student was charged \$1 for taking wood working and botany, while another paid fifty cents for cooking and sewing.

The court held that while the action of the board was honest and in the nature of an economy move, still it was not good judgment inasmuch as the assessment fell only upon a few students.

—Buffalo, N. Y. The city council has rescinded its action of July first, and has given the school board authority to appoint forty additional high school teachers. The action was due to the increase in students and to the belief that the board members should have entire discretion in the management of the schools.

—Suit was recently brought in the Circuit Court of McCracken County, Kentucky, against members of the board of education at Paducah, to collect the balances alleged to be due for the construction of the Augusta Tilghman High School. The contract was let on December 10, 1920, with the stipulation that the building was to be completed September 15, 1921. A bonus of \$100 was to be paid for each day the building was ready for occupancy before that date.

The contractors allege that the building was ready on August 4th and that the trustees declined to accept it. The contractors sought to collect \$33,794, the balance due on the original contract price.

—The Supreme court of Tennessee has been asked to pass on the legality of the 1921 law abolishing county boards, county high school and district advisory boards of education in the several counties of the state, a majority of which went out of existence in July. The way was made clear for a test of the law in a decision of the chancery court of Scott County, which declared that the school law did not repeal the law creating the Onelda high school corporation and which was abolished by the court in the election of a county board.

—Indianapolis, Ind. The board has adopted a resolution maintaining firm adherence to the doctrine that the board of education has the right to administer school affairs without the aid of state boards, composed of non-residents. The resolution was passed in reply to a letter from the tax board which proposed a reduction of the appropriation for construction work on four schools. The letter also criticised the business policy of the board and made the suggestion that representatives of outside organizations be



Protecting the Lives of the Thirty Millions

Testing the touch-plate and automatic inside latch on the exit doors of one of the Dow Spiral Slide Fire Escapes installed in the new Public School 65 of Baltimore, shown above. The Dow Exit Doors operate at the pressure of the foot of the smallest child.

THERE are thirty millions of precious lives in the schools of America.

The loss of any one of them would cause sorrow and suffering in the hearts of those who hold it dear. Yet, thousands are being sacrificed in fires every year to satisfy the desire for a meagre saving.

Give these priceless lives the utmost of safety! Fires are inevitable. But the sacrifice of human lives in fires can be avoided. Dow Spiral Slide Fire Escapes are the agents of safety. School buildings equipped with Dow Escapes can be emptied of their precious contents in less than two minutes. A little girl of six is as certain to escape as a boy of eighteen. For in escaping through a Dow it requires merely to sit down and slide to safety.

Make the building over which you have jurisdiction absolutely fire-safe. Write for complete details. The Dow Co., Incorporated, Louisville, Ky.



SPIRAL SLIDE FIRE ESCAPE

called into conference in school building activities.

—Louisville, Ky. The board of education gave its cooperation in a recent campaign for a "Better School Week" in the city. Special exercises were held in the schools during the week.

—The school board of Fort Smith, Ark., has announced that drastic steps will be taken to punish boys who break into school buildings and damage school property.

—The Auburn, Me., school board has abolished the "no school" signal. In other words, the school will hereafter be in session regardless of weather conditions.

—The Boston schools opened the fall term with a seat for every pupil.

—A teacher at Milwaukee was clandestinely married and continued for six months to draw pay under her maiden name. Upon discovery of the deception she was suspended by the school board.

—The attorney general of Maryland has decided that a sufficient tax levy must be exacted to pay the minimum teachers' salary fixed by the legislature.

—The school board at Oklahoma City, Utah, has refused to recognize the list of books prescribed by the state textbook commission. The claim is made that the books are better adapted for the rural schools than for city schools. The publishers will contest the action in the courts.

—The Detroit school board will permit married women teachers to remain in the schools. The rule that marriage is an equivalent to a resignation has been rescinded.

—In order to provide against suits for damages arising from any accidents that might occur to children while being transported to and from school, the Columbus, O., school board has placed all drivers of school vehicles under a \$2,500 bond.

—The Seattle, Wash., school board, in line with a policy of retrenchment, is exacting a fee to pay for supplies used in certain high school studies. This policy is opposed by some taxpayers and newspapers who hold that "to deny full and free opportunity to any student because of financial disability is to deny democracy in

our school system." The courts have issued an injunction pending a determination of the legal aspects of the order.

—President Anning S. Prall of the New York City board of education urges parents' associations to cooperate closer with the schools. Incidentally he advises such bodies to keep out of politics likely to unjustly embarrass the board.

—Charles Wolfe, Superintendent of Alfalfa County, California, in addressing school board members, recently said: "You should visit the schools at least once a month. You will learn whether the seats are too large or too small, whether the library is complete, whether the floor needs oiling, whether the stove needs fixing, whether the closets are in sanitary condition, whether the teacher takes a kindly interest in the welfare of her school. If these things are not as they should be it will be your duty to correct them."

—The school board of Brookfield, Mass., will send its fourteen students to the high school at Spencer, Mass., and pay the railroad fare amounting to \$900. Last year jitneys were employed which proved unsatisfactory.

—Two women are on the board of education of Duluth for the first time in the history of schools. Mrs. C. C. Colton was elected a member or the board to succeed Frank E. Randall resigned. The other member of the board is Mrs. Julius H. Barnes. There are nine members on the board.

—The board of education of New York City has decided to deny non-residents admission to the high schools. Non-residents now in the schools will be permitted to complete their courses. The shortage in school sittings is given as the cause.

—New York City has some twenty or more school janitors who have passed the age of seventy years. They were retired by the board of education last July and succeeded by a new set of janitors who were placed in temporary charge. The latter, pending the determination of their own jobs, have retained the retired janitors as their assistants. Inasmuch as the janitor in charge is held responsible for the help he em-

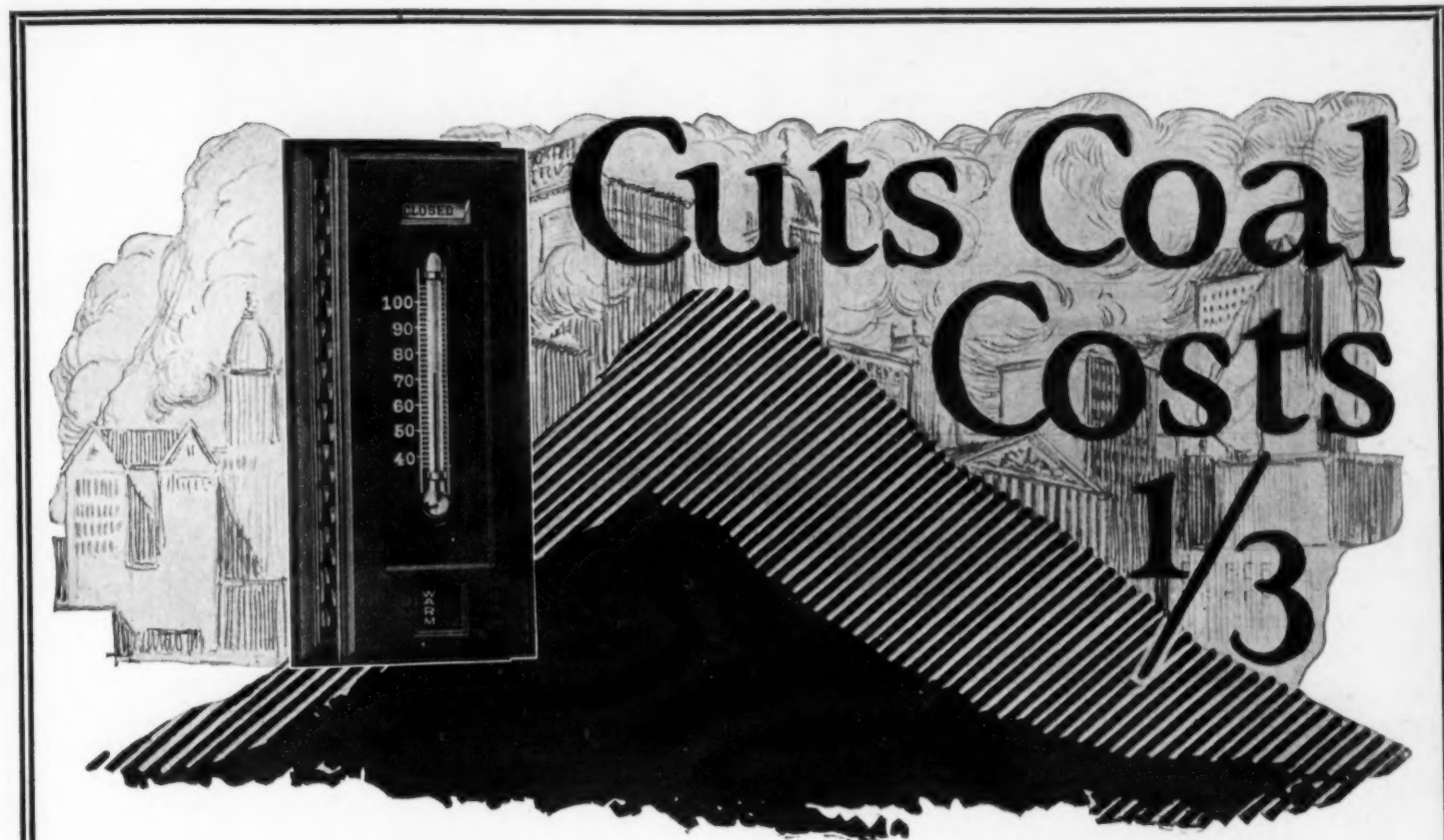
ploy, the board cannot interfere. One of the sub-janitors has been in the service since 1890 and is 81 years of age.

—An investigation of the cost of education to the school patron in Louisville, Ky., shows that it costs \$4,500,000 a year for clothes, books, lunches and carfare for the school population. Clothing, it is estimated, is the largest item of cost. For the average child in the grade schools, clothes cost \$30 a year; the high school pupil's bill is \$150 and the college student must have approximately \$200 worth of clothes. The estimated clothing bill for the secondary and college student is \$3,190,000. School, text and reference books cost \$332,000. This is estimated by paying \$4 a year for books for grade pupils; \$10 for high school pupils and \$20 a year for the college students. The daily cost for lunches for grade children is seven cents, while that for high school and college students is thirty cents. A total of \$3,260 a day is spent for school lunches for the entire school population, or \$734,000 for nine school months.

—Manchester, N. H. Members of the Federation of Women's Clubs have organized for the next municipal campaign with a view of defeating some of the local members of the board of education. The members opposed by the Federation are charged with being active in the fight against married women teachers.

—San Antonio, Tex. The local Council of Mothers, through the educational department of the organization, has asked the school board to reconsider its decision and to substitute some other method for meeting the school crisis. It has been proposed that the subjects of art, music and domestic science be eliminated to reduce the expense of operation for the next year.

—Teachers in the fifth grades of the public schools of Duluth, Minn., have completed a "History of Duluth" which was written under the direction of Miss Mary D. Davis, supervisor of primary education here. The history is now being read by editors and old residents of the city with a view of suggesting additions and correcting possible mistakes. One of the newspapers here has already offered to print the history in the newspaper in serial form.



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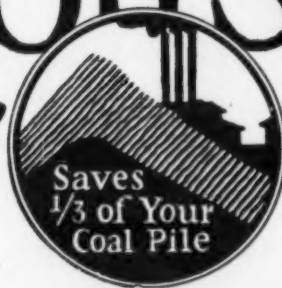
The Johnson System of temperature regulation delivers heat to each room only according to its needs—maintains constant temperatures, without overheating, or underheating in any room—without fuel waste.

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Temperature Regulation





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Investigate this modern method of ash removal. When writing, please tell us height of lift, quantity of ashes to be removed and how often, and location of driveway. A rough sketch will help.

Write, TODAY for detailed information on the time-and-money-saving G&G Hoist

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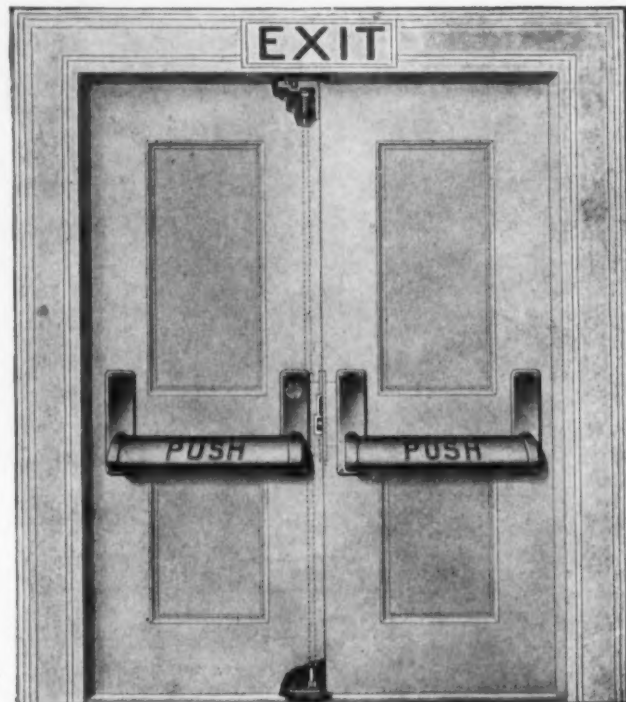


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With Automatic Stop and Gravity Lowering Device

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Members of school boards and other officials on whom the responsibility rests should make full provision for protection to life in case of panic by the use of this safety device.



SARGENT

Reg. U. S. Pat. Off.

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as illustrated above, are attractive in appearance, strong in construction and quick in action. The construction is such that in operating the push bar the hands or arms cannot be caught between the bar and the door.

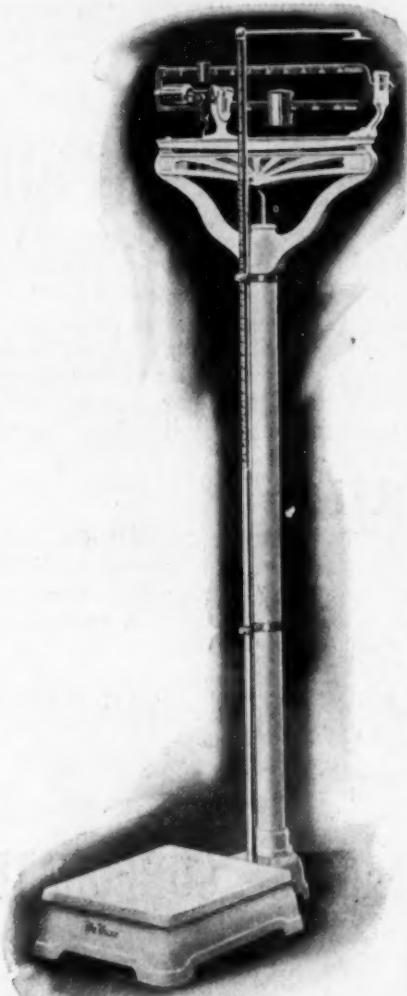
They have a wide push bar which projects only 2½ inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

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Its dependability has been developed by the steady progress of engineers and skilled workmen. The mature judgment of America's leading schoolmen, which has governed their acceptance of DeLuxe as *standard*, best bespeaks its supremacy.

Capacity 300 lbs., graduated in 1/4-lbs. Height, 58 inches; Floor space 13 x 24 inches; Platform, 10 1/2 x 13 1/4 inches. Finished in silver-gray or snow-white permanent enamel with heavily nicked trim.

Of particular importance to the school authorities is the improved full-capacity measuring device of the DeLuxe. Marked in legible, easy-reading 1/4-inch graduations from 2 feet 6 inches to 6 feet 6 inches, the DeLuxe will accurately and quickly measure the smallest child or tallest adult—a feature which has heretofore been impossible with the old-fashioned measuring-rod.

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New Rules & Regulations

NEW FIRE PREVENTION REGULATIONS FOR NEW YORK CITY SCHOOLS.

Superintendent Ettinger's Suggestions Based on Past Experience.

Fire drill regulations calculated to reduce to a minimum the possibility of danger from fire to any pupil while in a public school building of the city have been sent to all members of the supervising staff by Superintendent of Schools William L. Ettinger, with instructions not only to carry them into immediate effect but to insure their continued observation. According to Superintendent Ettinger the regulations are the outgrowth of rapid dismissals at the close of a school session. The superintendent directs that fire drills should be conducted at least once a fortnight.

Superintendent Ettinger suggests that the following precautions should be adopted to prevent fires being started by pupils within the building:

"Prohibit pupils from carrying matches into the building.

"Prohibit teachers from leaving classes unsupervised.

"Instruct teachers to keep keys in their possession and to keep wardrobes and closets constantly locked.

"Compel pupils moving from place to place within the building to carry identification passes.

"Allow no pupil to loiter in the halls, either during the noon hour or in advance of or after regular sessions.

"Do not tempt pupils to make unlawful entries into schools in search of money or other

valuables, as such entries are often complicated by incendiarism."

Superintendent Ettinger places special emphasis upon safety first in rapid dismissals. "Loss of life in crowded buildings," he says, "is almost invariably due to panic rather than to fire. The pressure brought upon us for rapid egress should not effect a loss of the more desirable purpose of safety first. Running, especially on the stairs, increases liability to falls and impairment of a teacher's command of class. Most of our buildings can be emptied in three minutes without running. The time lost is usually between the sounding of the signal and the start of the slowest class.

"A fire drill should be a simple, safe, and speedy egress to the street. Basements, auditoriums, covered playgrounds, and other places not in direct line of exit should not be used as termini because such use will accustom the pupils to action inconsistent with requirements in case of real perils, and, should speedy dismissal from these places be necessary, the danger of panic is great. After reaching the street the pupils should be halted at such points as will permit the approach of fire engines and the use of street hydrants. There should be ample space before all the street doors of the building."

On visiting schools, whenever practicable, district superintendents are requested by Superintendent Ettinger to witness fire drills and to comment to the principals upon them with respect to quality of control, promptness, form, posture and provision for safety.

Duties of the Assistant Superintendent.

The school board of Erie, Pa., has recently adopted rules governing the duties of the assistant superintendent. The rules read:

It shall be the duty of the assistant superintendent to visit every school in the system at least once each month during the school year.

In addition to observing the methods of instruction, discipline, attendance, etc., he shall make note of any unused equipment or surplus

supplies, which might be used to better advantage elsewhere, and also of any unused space or crowded conditions.

He shall attend all committee meetings, as well as the regular monthly meetings, of the board and shall make a report at each regular meeting of conditions observed by him.

RULES AND REGULATIONS.

—White caps and gowns, instead of the conventional black, will be worn by the faculty and students of the University of the Philippines at the annual commencement, according to a ruling of the president. The white costume is favored because of the tropical climate of the islands.

—McCrory, Ark. The school board has prohibited lip sticks, rouge, silk stockings, French heels and satin slippers among the girl students of the high school. The ruling is intended to promote health, inculcate modesty and reduce expense to parents.

—Spokane, Wash. The board has ruled that gum chewing must cease in the classrooms. Seats and desks have been relieved of the evidences and must remain in a clean condition.

—Harrisburg, Pa. The school board has adopted a rule prohibiting non-resident salesmen from entering schools and selling class pins and rings to children. Hereafter, only local salesmen will be permitted to solicit students. The board has adopted a second rule providing that teachers may reside outside the city, so long as they are within easy access of the schools.

—Portland, Ore. The board has adopted a rule providing that on all occasions when National emblems are displayed, the Flag shall occupy its rightful and proper place, never subordinated to that of any other nation or organization. It was pointed out that on one occasion another flag had been given a more prominent place than the American Stars and Stripes.

—Milwaukee, Wis. The board of education has amended its rules governing the retirement of teachers. The rule provides that whenever any principal or teacher reaches the age of 70 years,



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the superintendent must certify that fact to the committee on appointment, and the said principal or teacher's service will then terminate at the end of the current school year. The committee must charge the teacher or principal with being too old to give satisfactory service in the schools, and in case the principal or teacher demands trial, the committee must appear before the board in support of its contention.

The city attorney of Milwaukee has recently rendered an opinion on the question of repealing or modifying the rule providing for the permanent employment of teachers who have served the probationary period and complied with the conditions.

The attorney has referred the board to subsection 17 of the Laws of Wisconsin which provides that all elections or appointments of teachers by the board shall be on probation, and after a successful probation of four years, the election or appointment may be made permanent, during good behavior and efficiency, provided the teacher has taught four years or more in cities to which the law applies. No teacher who has become permanently employed by reason of four years' service may be discharged except for cause upon written charge which has been presented to the teacher.

—Minneapolis, Minn. The tuition rule will be amended, giving the superintendent power to remit tuition. A fee of \$10 per term, per subject, will be charged postgraduates who take subjects in the regular high schools.

—Portland, Ore. The board of education has ruled that preference in employment shall be given to heads of families and American citizens in all school board work. Such employment is at the discretion of the superintendent of properties in cases where it will not militate against the general efficiency of the work.

High School Fraternities in Washington.

For a period of more than two years, from January, 1916, to April, 1918, the board of education at Washington, D. C., gave very careful consideration to the subject of fraternities and

sororities and took formal action forbidding any student to join such societies or organizations under penalty of expulsion from school. The board also authorized the appointment of a commission to prepare a plan for carrying the abolition into effect, for the formation of substitute clubs, and for placing membership under faculty supervision.

It was finally apparent that despite the action of the board on fraternities and sororities, the organizations continued and do continue to exist at the present time. It was believed that some other penalty might be preferable to expulsion from school and to this end a new method of enforcing the board's rule against disapproved organizations was recommended by Supt. Frank W. Ballou. The following rules which were adopted on June first, exclude from representative honors of all kinds, such pupils as fail to sever their membership:

1. After June 1, 1921, membership on the part of any junior high or high school pupil in any association, organization, club, fraternity or sorority which has not been approved by the Superintendent of Schools is forbidden.

2. An association, organization, club, fraternity or sorority which enrolls in its membership pupils of a junior high or high school must submit to the Superintendent of Schools such information as he may require regarding its constitution, by-laws, membership, eligibility requirements for membership, time and place of meetings, programs of meetings, and any necessary information, as a basis for the Superintendent's approval or disapproval of said organization.

3. All associations, organizations, clubs, fraternities or sororities which may hereafter be approved by the Superintendent of Schools will be placed under the official supervision of the faculties of the several junior high and high schools.

4. Any pupil who, after June 1, 1921, joins, or after October 1, 1921, has not discontinued his membership in any association, organization, club, fraternity or sorority which has not been approved by the Superintendent will thereby disqualify himself, or herself:

1. From holding a commission or warrant in the High School Cadet Brigade.

2. From holding any position, either elective or appointive, on any school publication.

3. From representing his school on any team in competitive athletics, rifle matches, interscholastic debates or dramatic performances.

4. From being certified as eligible to stand from election to any class office.

5. From holding any position in a high school bank.

6. From holding any office in any organization, club, or activity which comes under the direction of the school.

7. From receiving any form of honors, other than those awarded for scholarship attainments.

8. From holding any position as representative of his school.

5. After September 1, 1921, and at the beginning of each semester or more frequently if required, each pupil in a junior high or high school shall be required to furnish the principal of the school with a signed statement, countersigned by one of his or her parents or his or her guardian, indicating the associations, organizations, fraternity or sorority of which he or she is a member.

It is not the purpose of this regulation to debar a pupil from securing a high school education but it is the intention of the above provisions to exclude from representative honors pupils who continue to be members of organizations which exist contrary to the regulations of the Board of Education.

Startling Statements Regarding Illiteracy.

The illiteracy figures in the United States are almost the highest of any civilized country, says the National Child Labor Committee. Thousands of children do not even reach the sixth grade. Out of some twenty thousand children, to whom federal certificates of age were issued during a given period, over five per cent were unable to sign their names legibly.

The committee has also brought out two curious facts. First, that illiteracy is highest where the foreign population is lower, second, illiteracy is most prevalent where child labor is least restricted, particularly in rural districts where children are kept out of school to work in the fields.



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Music is fast coming into its rightful place in the schools of America. Educators recognize its value as a recreational force; its refreshing effect on tired minds and bodies; its beneficial influence on all school work.

Music means progress. A good piano should be available to every room. W. Otto Miessner's Monogram, the "Baby Upright" Supreme, is the ideal piano for school use. It is Mr. Miessner's latest creation; a development of the small piano originated by him, possessing many exclusive advantages.

Its tone is truly remarkable; surprisingly big and beautiful; unsurpassed for school work. The Monogram is only 3 feet 7 inches high, 4 feet 6 inches wide, 2 feet deep. Weighs only 375 lbs. Easily moved from room to room.

Get complete information about the Monogram and the place it fills in the modern school. The new Monogram catalog will interest you. It tells about the changes that have been brought about in music instruction; explains how these changes have carried their influence into all school work. A book you will preserve, written by W. Otto Miessner. Mail the coupon now.

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Analysis of the Indianapolis Budget

The Indianapolis board of education has recently accepted a revised form of budget based on a division of expenditures adopted by the Inter-city Conference of Superintendents of schools. The new budget apportions all expenditures under eight general heads:

1. Administration.
2. Instruction.
3. Operation.
4. Maintenance.
5. Auxiliary agencies.
6. Fixed charges and contingencies.
7. Debt service.
8. Capital outlay.

These are in accordance with widely extended standards of budgeting and vary from these in that they afford a carefully studied definition of each term and of the subdivisions under each of the eight classifications so that the budgeting and the accounting in the cities which belong to the inter-city conference will be on a uniform and comparable basis.

School boards generally will be interested in the following definition of the eight general items which are as follows:

A. Administration (General Control).

Administration or general control may be defined as that group of activities that deals with (1) the carrying out of policies that provide physical, financial and educational conditions under which pupil, teacher, principal and supervisor may work to best advantage; (2) the provision of channels through which the course of study, general data and instructions may be quickly and effectively placed in operation; (3) the provision of channels through which information and conditions in the schools may be promptly transmitted to the central office; (4) putting into operation standards of achievement; (5) the preparation of general data and reports; (6) research activities; (7) general publicity.

Under this activity shall be included the following officers, superintendent of schools, deputy, associate, assistant, district or division superintendents, chiefs of compulsory attendance and census, directors of research, board of examiners, vocational relations, business and financial officials, and all clerical assistants attached to the offices mentioned, the operation and maintenance of the office building, and the supplies, publications, and other expenditures on account of those officers and their offices.

B. Instruction.

I. General Supervision.

General supervision of instruction may be defined as that group of activities which has to do with the actual improvement of instruction through direct contact with principal or teacher including activities as (1) preparation and development of courses of study and bulletins on methods; (2) examination of textbooks; (3) demonstration teaching; (4) institutes and teachers' meetings for the improvement of instruction; (5) personal conferences for the interpretation of methods and curriculum; (6) classroom visitation and inspection; (7) setting up standards of achievement.

II. Enforcement of Attendance Laws (field work).

Under this activity will be classified all field workers engaged in school and home visitation for the purposes of serving school attendance as provided for by law. In this group shall be included all but central office staff.

III. Instruction by Activities.

Instruction cost shall include all personal service (a) administration, (b) teaching, (c) clerical and (d) supplies and (e) textbooks devoted to the instruction of children in any given activity.

1. Administration within a building.

Administration within a building by someone connected with the building may be defined as that group of activities that deals with (1) the carrying out of policies which provide physical

and educational conditions under which pupil and teacher may work to best advantage; (2) the preparation of reports, collection of data and compilation of statistical and attendance records; (3) research activities; (4) the preparation and circulation of publicity material; (5) the establishing and maintaining of school and home relationships; (6) the classification and promotion of pupils; (7) the maintenance of school discipline; (8) the storage and distribution of materials and supplies; (9) the inspection of the physical plant; (10) the rating of teachers.

2. Supervision Within a Building.

Supervision within a building by some person attached to the building may be defined as that group of activities which have to do with the improvement of classroom instruction as defined under general supervision.

3. Teaching.

Time spent in the direct instruction of children whether in groups or as individuals, testing, the correction of papers in school, and time spent on preparation in school.

1. Kindergarten.
2. Elementary Instruction.
3. Special Instruction,
 - I. Anemic
 - II. Blind
 - III. Crippled
 - IV. Deaf
 - V. Speech Defects
 - VI. Mentally Defective
 - VII. Incurably Truant
 - VIII. Gifted
 - IX. Tubercular
 - X. Cardiacs
4. Junior High School Instruction.
5. High School.
6. Vocational, Technical, Trade and Continuation Schools.
7. Teacher Training.
8. Collegiate Instruction.

C. Auxiliary Agencies.

1. Playgrounds.
2. Social Centers.
3. Expenses of Parental School (not instruction).
4. Baths.
5. Lunches.
6. Transportation of Children.
7. Adult Lectures or Concerts.
8. School Savings.
9. Medical Inspection.
10. Dental Inspection.
11. Gardening.
12. Library.

D. Expenses of Fixed Charges and Contingencies.

1. Rent.
2. Insurance on Buildings, Materials, Stores, Automobiles and Liability.
3. Compensation Law.
4. Personal Injury Claims (First Aid).

5. Personal Bonds.
6. Contingencies.
7. Payments of Warrants and Orders of Preceding Year.
8. Pension.

E. Operation of School Plant.

1. Personal Service (Inspectors, Janitors, Engineers and Matrons.)
 - a. Day Schools.
 - b. Evening Schools.
 - c. Summer Schools.
 - d. Crossing Men.
2. Janitors' and Engineers' Supplies.
3. Gas and Electricity.
4. Fuel.
5. Telephone.
6. Water.

F. Maintenance of School Plant.

1. Labor Cost.
2. Materials.
3. Replacement of Engineers' and Janitors' Equipment.
4. Replacement of Educational Equipment and Furniture.

These six items represent expenditures common to all systems and are fairly regular from year to year. A comparative statement of expenditures under these items is valid.

The expenditures for payment of debt and capital outlay vary between cities and between years so that a comparative statement cannot be valid unless it is made a matter of elaborate statistical analysis.

G. Debt Service.

1. Redemption of Short Time Loans of Preceding Fiscal Year.
2. Interest on Short Time Loans.
3. Redemption of Bonds,
 - a. Payments from Current Funds.
 - b. Payments from Sinking Funds.
4. Interest on Bonds.
5. Payments to Sinking Fund.
6. Refunds (tax and tuition).

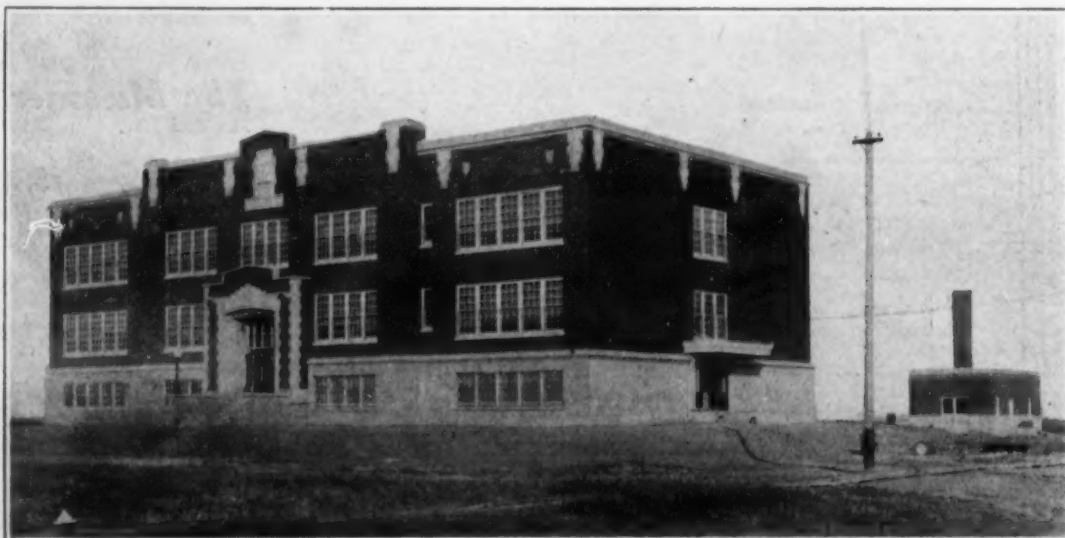
H. Capital Outlay.

1. Purchase of Land.
2. Improvements to Sites.
3. New Buildings,
 - a. Buildings.
 - b. Architectural and Engineering Fees or Costs.
 - c. Landscaping.
 - d. Playgrounds.
4. Alterations of Old Buildings (not repairs).
5. Equipment of New Buildings, exclusive of replacements.
6. Equipment for Old Buildings.

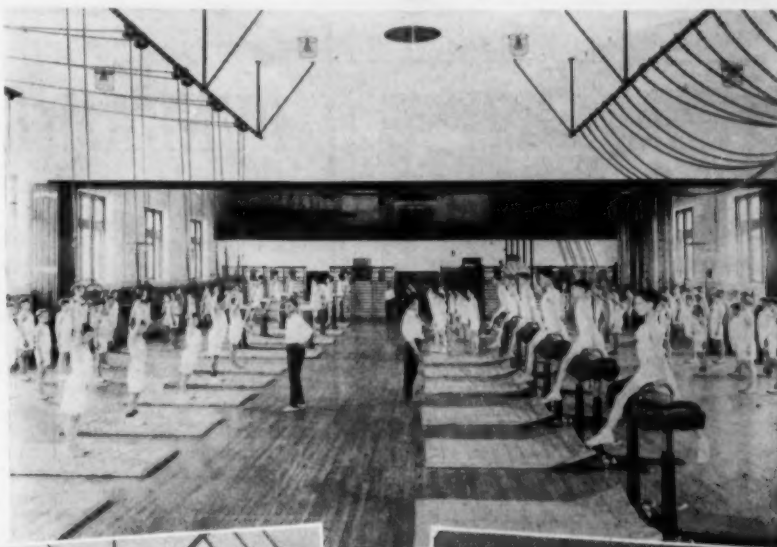
TAXATION AND FINANCE.

—A bond issue of \$847,000 for new school-houses issued by the Indianapolis school board has been vetoed by the state board of tax commissioners. The school board has now brought mandamus proceedings to compel the state body to yield to the approval of the bond issue.

(Continued on Page 79)



HIGH SCHOOL, WILSON, ARK. Edelsvard, Architect, Blytheville, Ark.



Medart Gymnasium Equipment in the Northeast High School, Philadelphia, Pa.

The Northeast High School Gymnasium, fitted throughout with Medart equipment, offers another instance of Medart Service combined with one of the most modern examples of advanced gymnasium design. The entire gymnasium layout was developed and built under the direction of Mr. Wm. A. Stecher, Director of Department of Physical Training.

The reason that responsibilities of this nature are so fre-

quently entrusted to Medart is that more than 50 years' experience in the designing and building of this class of equipment has qualified the Medart organization to successfully handle any installation from layout to completion.

Medart engineering service is freely extended to anyone interested in planning or equipping gymnasiums, locker rooms or playgrounds. Write for catalog "L."

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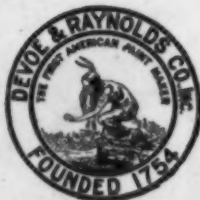
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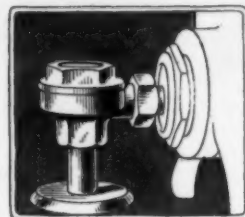
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From the snug coziness of your big arm chair, consider the children at school. Without warmth they cannot be comfortable, cannot concentrate on their studies. Half-way comfort is not enough. One teacher, over-sensitive to a few degrees change in temperature, will unconsciously suggest similar discomfort to the pupils.

Unhampered circulation of steam in radiators or hot-blast coils, is essential to heating comfort. To get this kind of circulation, architects, heating engineers and builders specify and use the Dunham Radiator Trap—a vital and distinctive part of the Dunham Heating System for schools. This system eliminates noise, keeps heating surfaces hot all over all the time. This makes for COMFORT.

Send for full information. It will give us pleasure to cite Dunham school installations that are giving comfort, probably some near you. If you need special information, we will prepare it for you.

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The heating system requirements of a building used for educational purposes are naturally rigid, for the maintenance of proper temperature in class rooms is of fundamental importance.

The satisfactory manner in which Webster Systems of Steam Heating meet these requirements is indicated by the hundreds of school and college buildings in which they assure a comfortable, readily adjustable and economical warmth.

Webster Steam Heating Systems have proven equally successful in every other type of building, as is being demonstrated in over 17,000 installations.

Let the Webster engineers help you plan your next installation. This consultation service is offered without charge or obligation and covers every step of the planning, erection and operation of each Webster installation to help assure heating equipment that will be permanently satisfactory and a credit to all concerned.

Send for Bulletin

WARREN WEBSTER AND COMPANY, CAMDEN, NEW JERSEY

31 Branch Offices

(Continued from Page 76)

—Oakland, Calif. The board of education has adopted a budget of \$3,628,011 for the operation of the schools during the school year 1921-22. Supt. F. M. Hunter has emphasized the need of strict economy in every department and has asked the cooperation of all teachers in this matter.

—Waukesha, Wis. A budget of \$117,000 has been adopted for the school board for the school year. The new budget is \$10,000 less than that provided last year.

—Washington, D. C. A general repair program has been adopted for the district schools been adopted for the school board for the new school year. The new budget is \$10,000 less than that provided last year.

—Chicago, Ill. The name of Roswell B. Mason has been given to the school at 18th Street and Keeler Avenue. Mr. Mason who was a civil engineer, was mayor of the city in 1869.

—Dallas, Tex. Work has been begun on the new building program of the schools with the erection of two schools and the preparation of plans for two further buildings. Buildings under way or completed this year will represent an investment of more than a million dollars.

—Dubuque, Ia. The school board has selected local Anamosa stone for the new high school which is to be erected at a cost of \$500,000. The trimmings will be of Bedford stone.

—Nampa, Ida. The board has adopted a 25-mill levy for this year. A fifteen per cent reduction in the salaries of janitors has been made.

—Seattle, Wash. The school board has adopted a budget providing for a reduction of the medical inspection personnel and a decrease of \$34,000 in the cost of the work. Under the plan, the offices of assistant medical inspector and supervisor of nurses and all others except that of medical inspector and twelve nurses, have been eliminated. The offices of the medical inspection department have been moved to the general office building of the board.

—Cleveland, O. The board of education has

adopted a building program calling for 112 additional rooms in 1921, 400 in 1922 and 300 in 1923. Within the next three years, it is expected that the building accommodations will be increased by approximately 800 rooms. The normal school growth calls for an annual building program of 200 rooms, one room a day throughout the school year.

—Pittsburgh, Pa. Inadequate building facilities and prohibitive costs of labor and material have held up building operations which are necessary to the acquirement of more schoolroom accommodations. Congestion which has been marked during the last year, has been increased this fall with the enrollment of 75,000 children, or an increase of 6,000 over last year. The largest high school enrollment in the history of the county was recorded at the opening of school.

—President A. S. Prall of the New York City board of education has made a plea for more power for the board in order that delays in school construction may be eliminated. Some of the delay has been attributed by Mr. Prall to incomplete cooperation between the boards, the city board of estimate and the finance department. Again, citizens frequently disagree over the selection of a site and their activities tend to act as retarding influences.

Mr. Prall condemns the system of making the locations of sites public before they are purchased. He takes exception to the practice of estimating costs of construction before bids are received as this gives the bidders an idea of what the board thinks the structure should cost.

The jurisdiction of the board should be independent of other branches of the city government and should be given more power according to Mr. Prall. He believes that the matter of purchase of sites, and preparation of plans and specifications should be left with the associate superintendent and the experts of the board who are familiar with facts, figures and requirements of the schools.

—Louisville, Ky. The board has limited the use of school buildings for public use to meetings

of special importance. The ruling was made as a precaution against a possible fuel shortage.

—Cleveland, O. The first building to be planned and built especially for a junior high school is the new Patrick Henry Junior High, now in course of construction. The Patrick Henry is one of four new junior high schools to be included in the building program of the board. The building which will be occupied in September, 1922, will cost \$850,000.

—Eagle Grove, Ia. The new Eagle Grove High School at Eagle Grove, Ia., has been erected at a cost of approximately one-quarter of a million dollars. Three studies so far taken up in connection with manual training are elementary mechanical drawing, wood turning and wood finishing. The domestic science department is furnished with a cooking room, dining room, pantry, sewing room, cutting and fitting room. The gymnasium is one of the best in the state. It is equipped with lockers, showers, wrestling mat, parallel bars, chest weight, trapeze, stall bars, climbing rope, ladder, dumb bells, Indian clubs, jumping standards, spring board and equipment for the games of indoor tennis and volley ball.

Madison, Wis. The new Madison Vocational School opened on the 6th of September under the supervision of Director A. W. Siemers. All commercial subjects taught in regular business courses will be included in the day and night school curricula. The entire upper floor will be devoted to the use of the business college department and the work of the remainder of the commercial department. The building cost \$500,000.

—The proposition to increase the state school tax of New Jersey from 2% to 6 per cent has been defeated. The present per capita cost of public education in New Jersey now is \$54 of which the state pays \$27.50, and the locality \$33.50. It was believed that owing to the business depression the school taxes ought not to be increased.



SAFETY DEPENDS ON EXITS

For the corridor and at the ground exit or in places where large numbers of pupils seek an exit in case of fire, double doors with an absolutely dependable latch is a primary essential.

For the average fire exit where fire escapes are provided large numbers of pupils cannot be handled in safety. At such a point a single door is the most satisfactory but a dependable latch is just as essential as in the double doors.

DAHLSTROM THREE-POINT LOCK

The Dahlstrom Three-Point Lock was designed after careful study and research to provide a lock that would meet the Underwriters' requirements. They require that swinging fire doors must be locked at three points to prevent, in case of fire, the warping away from the stops which would permit the flames to pass thru.

This locking device is so constructed that the doors cannot jamb in closing. In case the door with the stop swings faster it will automatically stop before reaching the jamb and allow the other door to fully close. It will then close into position and automatically lock itself at the three points.

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FIGHT FIRE BEFORE YOU BUILD—NOT AFTER



The schoolhouse situation of New York City will in all probability form an issue in the mayoralty contest. The Hylan administration spent \$15,000,000 for new schools. In 1918 there were 49,975 children on part time in the elementary schools. On June 1, 1921, there were 82,859. The new sittings provided with the fall opening of schools will reduce the part time pupils to 50,000.

Frank P. Graves, new state school commissioner of New York, holds that the financing of school systems is one of the pressing problems of the day. He believes in granting financial independence to boards of education within a reasonable limit. The pressure for legislation to that end, he holds, must come from the people themselves.

—Madison, Wis. It cost the city schools of Wisconsin \$68.72 on an average to educate each pupil in attendance during the last year, a report of the superintendent of public instruction shows. The expenditure of \$107.85 per pupil in Jefferson was the maximum cost recorded while Peshtigo spent the least per pupil with \$37.28.

Chippewa Falls spent \$75.81 to educate each pupil; Eau Claire, \$70.35; Wisconsin Rapids, \$69.72; Green Bay, \$61.65; Janesville, \$58.96; Kenosha, \$75.80; La Crosse, \$60.00; Madison, \$72.20; Manitowoc, \$67.58; Marinette, \$54.20; Marshfield, \$79.09; Milwaukee, \$75.00; Oshkosh, \$72.19; Racine, \$63.94; Superior, \$91.71; Wausau, \$53.94.

—Chicago, Ill. Owing to the large amount of work in connection with the preparation of plans and specifications for new buildings and additions, the board has ordered the employment of a chief architectural designer, at a salary of \$4,500 per annum.

—Portland, Ore. Mr. W. F. Woodward, chairman of the committee on business, has recommended that the board dispose of its Liberty Bonds which were invested from sinking funds, and use them for the purpose for which the funds were originally intended. Mr. Woodward recommends that \$290,000 of the sinking fund be used

to pay off outstanding obligations, and that \$153,000 of the insurance fund be transferred to the building fund. The latter is to be devoted to the construction of school buildings and to the purchase of school sites. The insurance fund will thus be dissipated and the district will protect itself from fire by insurance.

—Three forms for taking inventory in the schools of Duluth have been prepared. These forms at present are used in the teachers', supervisors' and the business office. The form for teachers, called No. 1 is a printed list of all the equipment used in the particular shop, with four spaces to be filled in by the teachers, giving numbers and conditions of machinery and tools. Form 2 is for the use of the supervisor and contains the same list of equipment as number 1. The supervisor is to fill in the blank spaces on this form once in five years and furnishes information as to unit cost; installing; total cost; salvage value; wearing value. Form 3 is for the use of the business office and contains the same list of equipment as forms 1 and 2 with blank spaces for quantity; unit cost installed, cost of reproduction, salvage value, conditions and present value. These forms are to be filled in by the clerical force in the business office. They will get their information from forms 1 and 2. This system does away with inaccuracy inherent in the old system and when once started will be easy to follow up.

—It will take \$87,000,000 to run the schools of New York next year. Besides \$35,000,000 will be required to carry out the school board's new school building program.

—With the opening of the 1921-22 school year in Detroit, two hundred and seventy-six rooms with a total capacity of 10,840 children became available. The group includes five new buildings and a number of additions to present structures, which reduces half-day sessions to a considerable extent.

—New York, N. Y. Roofs of standard type school buildings to be erected in the First City are not to be provided with play space and gym-

nasiums according to a recent decision of Building Supt. C. B. J. Snyder. Five of these buildings opened with the new school term, were constructed in such a manner that roof playgrounds might be provided at some future time. It was pointed out that the provision of roof play space and gymnasiums would increase the cost of construction.

—Washington, D. C. Schools in the District of Columbia will receive 34 per cent of the total amount of money to be spent for city government in the fiscal year ending June, 1922. This amount, \$8,002,440, is exceptionally high. For a number of years the average amount spent on the schools has been about 27 per cent of the entire budget.

The new John Adams High School, at Cleveland, O., is of a type far in advance of many new schools to be built within the next two years. The building is to be three stories high, of brick and limestone construction, and will cost \$1,500,000. It is expected that the building will be completed and ready for occupancy within a year and a half.

—Eighteen rural communities in Alabama are building, according to state plans and specifications, the 8 1-S state planned school, designed by the architect in the division of rural education of the State Education Department. A few of these communities are erecting only the front unit and auditorium at present, with the purpose of adding two wings as future growth makes necessary.

Sixty-two counties in Alabama have received state aid in the erection, repair and equipment of their rural schools totalling \$260,434 during the year just closing. This represents a total expenditure for the improvement of housing conditions for the rural children estimated at \$1,300,000. In Montgomery county alone, \$300,000 additional construction will soon be under way unaided by state funds.

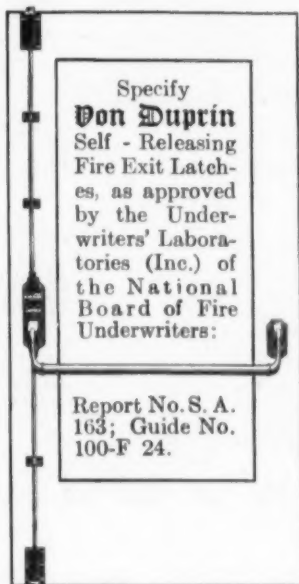
—The needs of the schools of Oakland, Calif., have been deemed so great in proportion to the

(Continued on Page 83)

Von Duprin

Self-Releasing Fire Exit Latches

To Conserve the Most Valuable Thing in the World



Waltersville School, Bridgeport, Conn. Leonard Asheim, Bridgeport, Architect.

To save the World's most precious possession—human life—is the function of **Von Duprin** Self-Releasing Fire Exit Latches.

To protect lives so faithfully that the time will come when disasters from fire-panic will be a thing of the past—

To make safe exit in time of emergency so easy, so certain, that even the smallest child cannot become trapped in a burning building—

To make devices so reliable that none will ever fail in time of need—

Those are our purposes, our ideals. We would be gratified to show you how close we have come to achieving them.

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VONNEGUT HARDWARE CO.
Indianapolis, Ind.



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TRADE MARK

Makes Concrete Floors Dustproof and Wearproof

Dustless Concrete Floors!

Every concrete floor in your school building is a probable source of concrete dust.

This sharp, hard silicate harms clothing, desks and even the lungs of the pupils.

Lapidolith will make old or new concrete floors granite hard and therefore, dustless.

Just flush it on!

Lapidolith is a liquid chemical and it acts at once, completing the hydration of the cement and filling the pores with a crystalline material.

This treatment makes floors in the toilet rooms non-absorbent, and so easily washed and odorless.

Leading colleges and schools use Lapidolith.
200,000,000 square feet of Lapidolized floors in use.
Write for their testimonials, also free sample and literature. Dept. 22.

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the sanitary, light-reflecting wall coating for halls, toilets and recreation rooms.

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especially adapted for classrooms because its velvety finish reflects light without glare.

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the modern hardener gives new life to old or new wooden floors. It prevents splintering, wear and dusting, and gives a smooth, sanitary and decorative surface.

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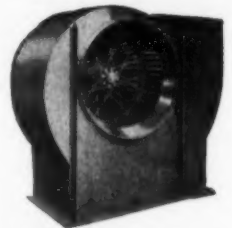
is another example of modern efficient ventilating methods. It is equipped throughout with

Bayley Plexiform Fans

Plexiform fans were chosen because of their perfect balance, noiseless operation, power economy, sturdy construction, and freedom from breakdown troubles. They are built to fit existing building conditions and do not require expensive alterations to install on an existing distribution system if installed in old schools, nor any special provision in new buildings.

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A few advantages of the Peerless Unit System of Ventilating and Heating:—

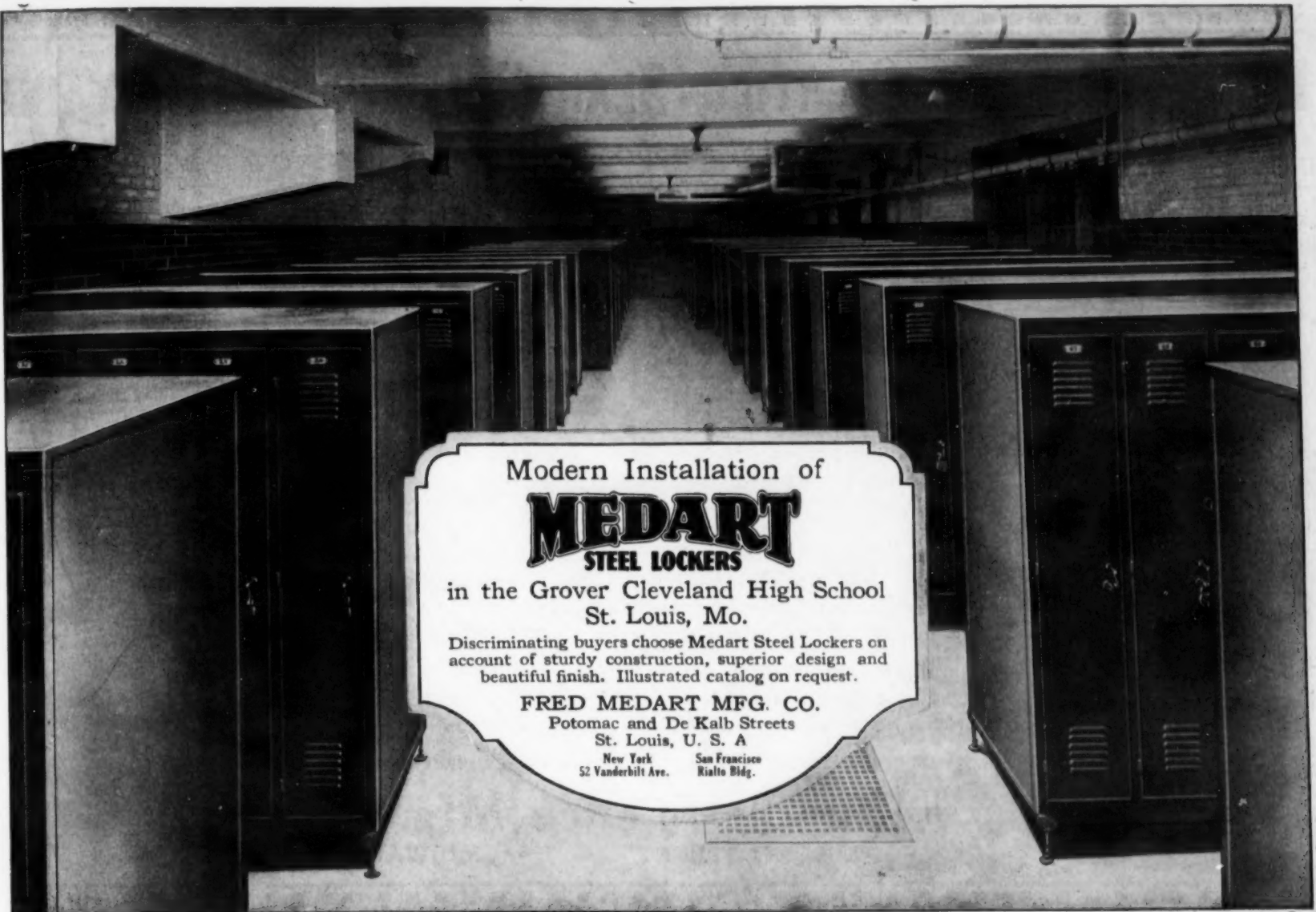
1. Independent service for each room at a cost proportioned exactly to the useful work done.
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Turn your ventilation problems over to our engineers.

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FRED MEDART MFG. CO.

Potomac and De Kalb Streets
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(Continued from Page 80)

money at present available that the most economical types of construction have been adopted for new schools. Small elementary and some of the neighborhood schools will be of wood construction, with walls of cement stucco on metal lath and roofs of Spanish tile. The high schools and junior high schools will have exterior walls of brick, hollow tile, or concrete, covered with cement stucco, and the roofs will be similar to the elementary schools. The interior construction of these buildings will be of wood. As a result of this policy of economical construction, the new elementary schools are costing only about \$7,000 a classroom, including auditorium and administration and special rooms. The fire hazard has been reduced by fireproofing, easy stairways, and by good water communication everywhere.

—Public schools of Paducah, Ky., will require \$150,500.50 for operation during the coming school year, according to estimates prepared by Superintendent Ralph Yakel which have been submitted to the board of education for approval. The new budget is about \$8,000 larger than that of last year. Increased salaries for teachers and supervisors is responsible for the bulk of the increase.

—Bids have recently been asked by the board of education at Valentine, Neb., for a two-story high school, to cost \$90,000. The plans were prepared by Colby, Westerlind & Reynolds of Sioux City, Ia.

The building will be constructed of brick and reinforced concrete, with stone trimming. The building is to be used for high school purposes only and will include provisions for a study hall and gymnasium, in addition to the regular classrooms and rooms for special subjects.

—State Superintendent George Colvin has announced that the per capita tax for schools has been fixed at \$6.10, based on an estimated income from taxation of \$4,000,000. There are 650,000 school children in Kentucky.

—A measure to place the proposed \$1,000,000 school bond issue on the November ballot was introduced in the Louisville General Council and has been referred to the Finance Committee to

give the board of education a chance to explain its provisions to that body. It is said that the measure will come before the council for action at its next meeting. If the council approves of the measure, the question of the bond issue will be placed before the voters at a referendum, a two-thirds vote being required to pass the issue. The interest rate to be paid on the bonds was left blank by city legal authorities who drew up the ordinance, leaving this provision to the finance committee. It is probable that 5 per cent will be the rate.

—Harrisburg, Pa. The school board has approved the preliminary plans for the new Senior High School and construction work will be started this fall. The plans of the building which were prepared by Architect C. Howard Lloyd, provide for a structure on the unit plan, to accommodate 3,000 students.

The high school is part of a \$2,000,000 program which includes also extensive grade school improvements.

—Education per pupil in the public schools of Duluth has increased \$11.88 since 1920. In 1920, it cost Duluth \$80.63 to educate each of the 15,395 students and in 1921 it cost \$92.51 to educate each of 17,358. This is the information contained in the report of McCulloch & Baker, accountants and auditors, who have just completed the audit of the books of the board of education.

The cost per pupil as itemized follows:

	1921	1920
General administration	\$ 3.77	\$ 3.60
Instructional service	63.55	49.85
Operation of Plant.....	11.55	10.45
Maintenance of Plant.....	2.52	4.73
Auxiliary activities	2.61	2.76
Fixed Charges .....	.95	.90
Interest on Bonds.....	5.15	6.91
Interest Short Term Loans.....	1.20	.29
Depreciation	1.02	1.01
Miscellaneous expense .....	.19	.13
	\$92.51	\$80.63

The total cost of operating the public schools for the fiscal year ending July 31, 1921, was

\$1,605,819.75 as compared to \$1,241,302.69 in 1920. The biggest items of expense for 1921 were: general administration, \$65,454; instructional service, \$1,102,336; operation of plant, \$200,536. These items in 1920 were general administration, \$55,411; instructional service, \$767,407; operation of plant, \$160,840.93.

The cost of the educational service is 68.59 per cent of the total expense of operating the schools, 12.49 per cent for operation of the plant; 4.09 per cent for the administration; and the other items form a considerably smaller percentage.

The value of the school property, plant and equipment is given at \$4,835,254, divided as follows: real estate, \$646,471; buildings, \$3,895,526; furniture, \$122,805; structural apparatus, \$154,331; other equipment, \$16,118. The total value is \$203,323 greater than last year. The report also shows that there is a total of \$2,022,000 bonds outstanding. These were issued from May 1, 1893, to April 1, 1921.

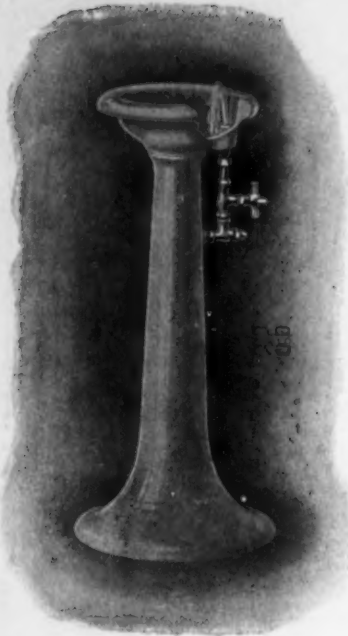
The auditors were requested to investigate the other departments of the school besides that of education. McCulloch & Baker reported inefficiency in the handling of requisitions. They said that 10,000 requisitions were filled in one year and that the filling of each requisition required 35 minutes' time. They suggested that supplies which will last for 60 days be furnished the schools, instead of the other method of ordering small quantities. In this way, there would be a considerable saving, the auditors reported.

The system of making up the budget used in the schools is reported by the auditors as being fairly good.

—The entire issue of the Winston-Salem (N. C.) School News for October 3rd was devoted to a systematic study of school housing conditions in the city. The present condition of the city schools is briefly set forth and the proposed remedy is given. No effort is being made to meet future needs but the authorities are doing their utmost to take care of present conditions. The building program provides for the erection of a

RUNDLE-SPENCE "VERTICO-SLANT" DRINKING FOUNTAINS

feature a "protecting jet" which absolutely eliminates all possibility of contamination.



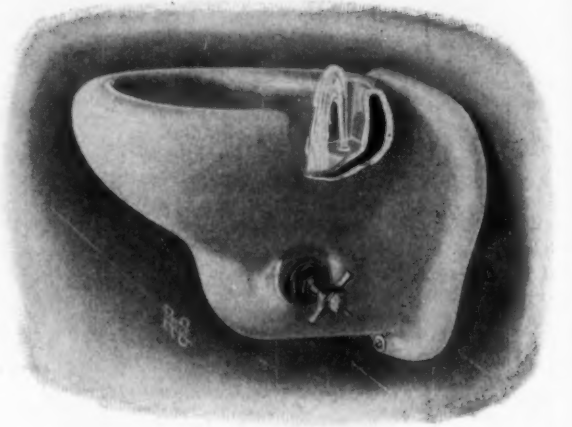
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The "protecting jet," an exclusive feature of the Rundle-Spence "Vertico-Slant" Drinking Fountains, prevents the lips or corner of the mouth from coming in contact with any part of the nozzle. The nozzle, which is raised slightly above the sloping base of recess, prevents bacteria from falling back upon the jet, thus eliminating all possibility of contamination. The copious drinking feature of the vertical stream fountain is retained, as the mouth comes in contact with the stream at a point where it loses its momentum.

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No. C-92

high school and several grade schools, in addition to the remodeling and enlarging of others which are badly crowded. Several graphs have been included to give a comprehensive idea of the imperative demands in the way of accommodations for both the white and colored schools.

—One of the new high schools in Minneapolis will be named after Cecil Kyle, a high school graduate who lost his life in the late war.

—Griswold, Conn., has recently voted to consolidate the schools.

—Martins Ferry, W. Va. The board of education has asked the voters for an extra six-mill levy, over and above the fifteen-mill limitation, to relieve the school system from its financial difficulties.

—Washington, D. C. Plans have been made for the beginning of construction work on five of the ten new buildings in the building program before the end of the present year. Plans have been completed for one building and four others are ready for the contractors.

—Portland, Ore. The 1922 budget of the board of education has been fixed at \$4,007,522, or \$372 less than that for 1921. The proposed extensions in playgrounds and building programs have been materially reduced in the budget, but teachers' salaries show a slight increase.

—Indianapolis, Ind. A cut of two mills has been made in the school levy by the state board of tax commissioners. The reduction will come from the levy for teachers' pensions which has been reduced from six to four mills. The proceeds from the two-mill levy of the state will be turned over to the city schools, making in effect, a six-mill instead of an eight-mill levy.

—Columbus, O. The operation of the new "pay-as-you-go" plan of the board is expected to lead to the largest economical program in the history of the schools. Steps have been taken by a newly formed ways and means committee to effect savings reaching thousands of dollars.

While the extensiveness of the building program has made necessary a part of the economy, the board aims to keep out of debt on the general

operating expenses, and to bring about a more equal distribution of work among the teachers through transfers and adjustments of the teaching staff. Last year during the first two weeks of school, twenty appointments were made, while this year no new instructors were employed.

Approximately \$5,000 will be saved through a change in the pay of substitutes. These are divided into two classes, regular and "per diem" substitutes. The former will be held responsible for work for a definite period, while the latter will be paid by the day instead of receiving the pay of a regular substitute.

In the janitorial department, one man has been assigned to do the work formerly accomplished by two, with a saving of about \$3,000.

In some cases where the classes are small, classes have been combined or transferred to other buildings where they have joined with a similar class, thus eliminating one or even two instructors.

In the matter of supplies, it is planned to advertise for bids, instead of buying from one dealer exclusively.

—Supt. B. B. Jackson of Minneapolis has asked the city board of estimate and taxation to reconsider the proposed reduction of approximately a quarter of a million dollars in the budget of the board. Supt. Jackson pointed out that the proposed reduction would mean the curtailment of a number of necessary activities.

—Pittsburgh, Pa. The board has awarded contracts for the construction work upon three new schools, amounting to a total expenditure of \$2,000,000. The three structures will be ready for occupancy in September, 1922.

—New York, N. Y. The Meyer investigating committee is seeking the reason for the failure of the school authorities to use the available funds for fire prevention work. An emergency fund of \$500,000 was voted last spring for the work but it appears that school repair work was given preference over the fire prevention remedies. The removal of wardrobes from exits, the installation of fire stops, and the substitution of

fireproof for wooden doors, are deemed vital to the protection of the pupils. The fire dangers are considered important enough to call for immediate correction of the more serious defects enumerated by the fire and building departments.

Superintendent of Buildings, C. B. J. Snyder, who appeared before the committee, denies the existence of any actual fire dangers. He points out that the 7,000 reported fire hazards may possibly be exaggerated and he holds that these do not represent a serious menace.

—The Massachusetts Department of Education has estimated that between \$35,000,000 and \$40,000,000 will be spent for education in the public schools of the Bay State this year, exclusive of the cost of new buildings.

—Hartsburg, Ill. In awarding the contract for the construction of the high school, the board estimates that it has saved 25 per cent of the cost of the building through waiting a year. The bid this year was \$47,232 as against \$60,000 a year ago. The building will be ready for occupancy in January or February of next year.

—Acushnet, Mass. The board has named the new grammar school, the Mason Wheldon Burt School in honor of a war veteran who was killed in the late war. Mr. Burt was 22 years old at the time of his death in September, 1918.

—New York, N. Y. The board has adopted a budget for 1922 calling for an appropriation of \$89,756,113. This is an increase of \$1,932,422 over last year.

—The city council of Houston, Tex., has adopted an ordinance appropriation of \$30,000 for the construction of nineteen temporary school buildings. The amount is to be refunded by the school board.

—Minneapolis, Minn. The \$1,230,000 realized from the sale of school bonds sold by the city board of estimate and taxation will be used for the purchase of building sites and for the construction and equipment of schools.

—New Albany, Ind. The budget for the schools has been fixed at \$184,318. The school levy will amount to 98 cents on each \$100 valuation.

Marks—and the Temperature

PUPILS can't do well when the schoolroom is alternately too hot or too cold, as it is likely to be when coal is used for fuel.

The school superintendent suffers, too. There are the difficulties and uncertainties of getting coal—and storing it and stoking and disposing of the ashes.

And for the taxpayer—there is the high price!

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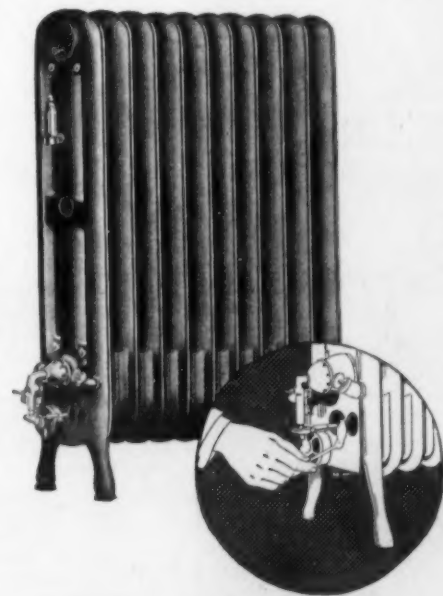
Schools all over the country are using GASTEAM with great success. Let us tell you about it and how easily it can be installed in your building.

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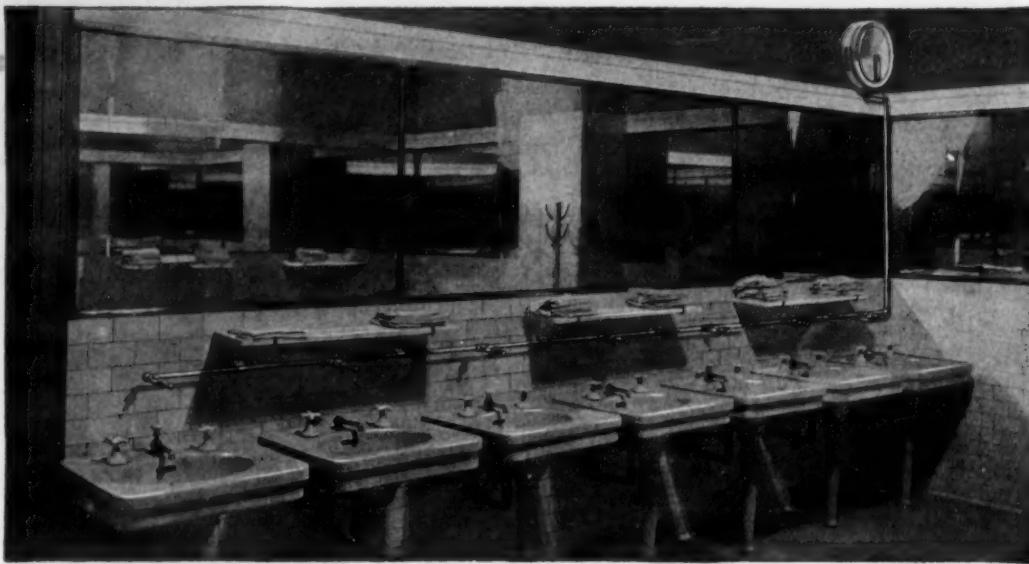
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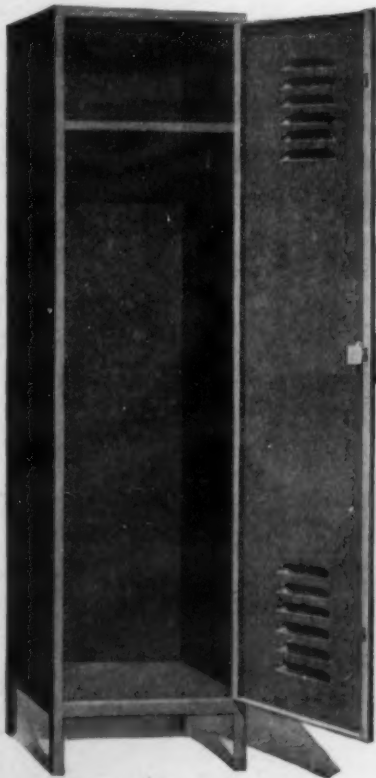
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"Boys *will* be boys!" They *will* be impetuous, and when they use lockers, they *will* "treat 'em rough." There's no denying it, and not much use trying to prevent it. About the only thing you can do is to buy lockers that will stand the treatment.



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are designed and built with the definite object of making them strong enough to withstand the onslaughts of exuberant youth. Foremost in *security, convenience* and *durability*, relatively low in *price*, they invite comparison on the point-for-point basis.

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Contrary to what might be expected the exceptional quality of Durabilt does not mean a high priced locker. In fact, the price will be found *gratifyingly moderate*. By reason of our specializing exclusively in lockers, and with our modern equipment and efficient management, we are able to produce economically. Our economies along these lines we are very glad to share with our patrons in the form of prices that appeal.

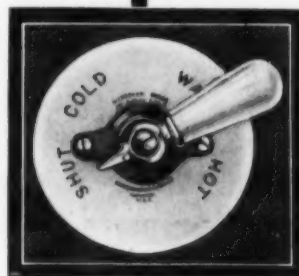
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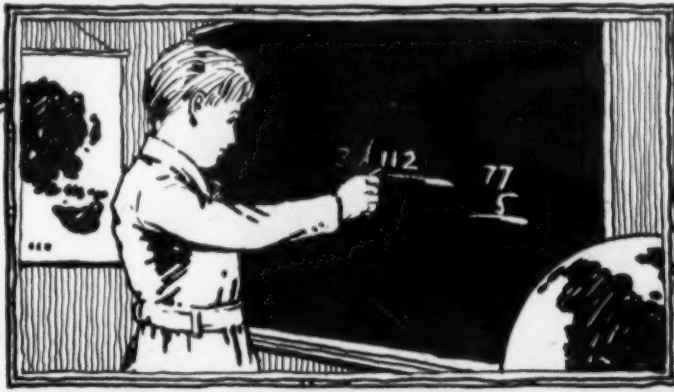
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are approved by State and National Health Authorities and sanitary engineers everywhere.

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Where there is water supply but no sewer connection, we advocate the use of our Perfection Septic Systems which permit a water-flush closet.

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Economy Urged by Dr. Ettinger.

—The need for economy in school administration during the new school year has recently been impressed upon the supervisory staff of the New York City schools by Dr. William L. Ettinger, superintendent of the school system. Supt. Ettinger urges that expenditures be closely analyzed to the end that nothing will be demanded or expended in excess of the needs of the schools. Several phases of school work where economies are possible were cited by Supt. Ettinger. These include protection in the maintenance of the school plant and equipment, the elimination of waste in ordering textbooks and other supplies, and the grouping of children to eliminate waste due to crude classification, and the possibilities of economy in classroom instruction and management by systematizing routine work. The proper classification and segregation of defective children is not only desirable from an ethical but also from an economic standpoint.

In addition to efforts to make definite segregation of pupils with marked physical or mental defects, Supt. Ettinger emphasized the need of a wider use of the classroom tests in academic subjects in order that the ability of children may be measured by definite standards of attainment rather than by the judgment of the average teacher.

Referring to economy in instruction and management of the classroom, Supt. Ettinger pointed to the problem of systematizing daily recurring phases of classroom routine to make them practically automatic, the problem of eliminating waste in the presentation of lessons

whether caused by the faulty preparation of the teacher, disregard of time limits, improper use of texts, or failure to maintain class control sufficient to make the work successful with a minimum of time and energy.

In the matter of supplies and equipment, Supt. Ettinger urged that directors of special branches in particular keep careful records of the amount of money appropriated for their respective activities, and to make future budget requests on the basis of the stock on hand. Economy in the ordering and distribution of supplies is practically impossible unless based upon definite requisition records. Proper operation and economical maintenance are also possible through accurate inventories and through strict accountability for damage done or losses sustained.

AMONG SUPERINTENDENTS.

—The next meeting of the Department of Superintendence will be held in Chicago instead of New Orleans as previously announced. Dates, February 27 to March 2.

—The New Hampshire Department of Education reports the appointment of superintendents in all but one of the 64 supervisory districts of the state. Of these, 58 have been renominated to continue work in the same unions, six have resigned for better positions and two have retired. There are fifteen cases of increased salary as eleven superintendents were advanced and four will receive more than the predecessors were paid. A total of 42 superintendencies have made no change in salary.

Eighteen superintendents receive an increased salary and only six a decreased salary this year, while the salary of 44 superintendents remains unchanged. The increase in fifteen unions is \$4,870 and the decrease in nine is \$2,550, making the total increase for superintendents' salaries \$2,320.

—The American Federation of Labor, in a recent resolution, has intimated that it will take a leading part in the development of the nation's public school system and will see that labor's point of view is accurately expounded in the

school textbooks. The action followed a report that an active propaganda had been started in the schools in furtherance of the so-called "open shop."

—A total of fourteen states in the Union have the appointive rather than the elective power in the selection of the state superintendent of public instruction. The state of Indiana, like the other fourteen states, is desirous of having appointive power.

Under the present system in Indiana, the superintendent's office is a two-year term. He must then run for reelection or a new incumbent is obtained, so that one man does not have sufficient time to inaugurate a progressive program for school betterment. The ratification of the amendment to the school law enables the school authorities and to the legislature to inaugurate a program of educational betterment.

—Tacoma, Wash. Night schools have been eliminated from the curriculum in order that the board may keep within the limits of the present tax levy.

—Hagerstown, Md. The platoon system has been introduced in the high school to overcome crowded conditions.

—The school year has been lengthened two weeks in Connecticut, making the year exactly what it was twenty years ago, or 190 days.

—Information about the Cleveland public schools essential or convenient for use has been gathered into a small handbook which the Division of Publications has issued to all new teachers. Facts about teaching certificates, health certificates, the pension system, salaries and salary adjustments, appeals to principals, supervisors and superintendents' extension courses, and what to do when the supervisor calls, are stated clearly and briefly. The booklet contains those rules of the board which are of special interest to teachers. A map showing the location of all the schools and a folder descriptive of the library facilities go with the booklets. The foreword of the booklet contains a message from Supt. R. G. Jones to the teachers.

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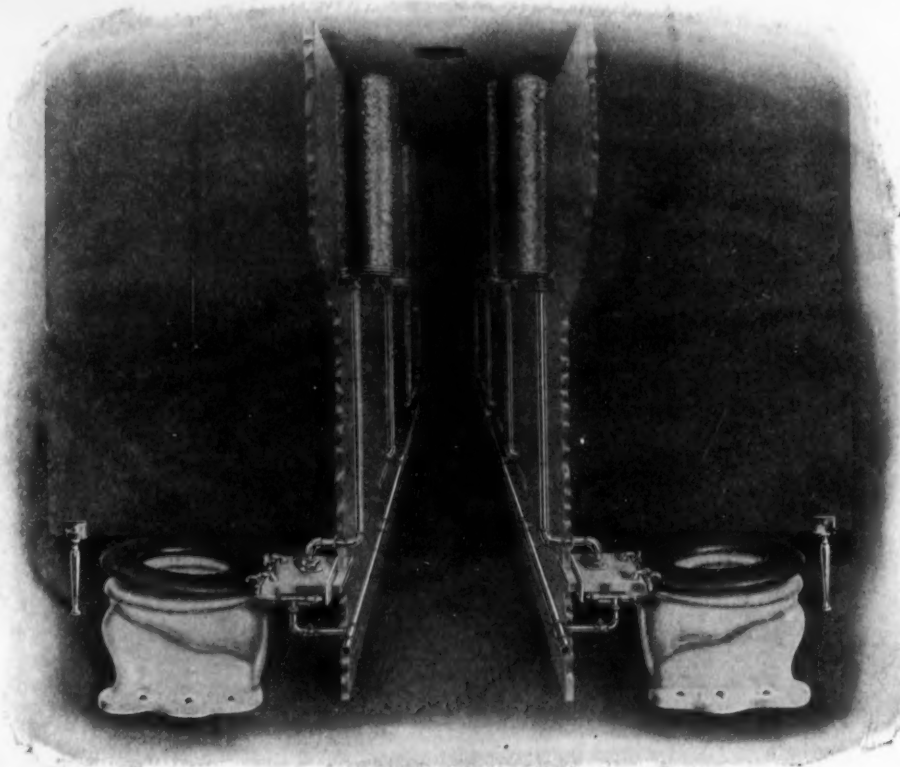
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—Williamsport, Pa. The school board has begun the redistricting of pupils of four schools, coincident with the opening of two new schools. It is planned to open these latter buildings as junior high schools in the fall of 1922 and the redistricting is a step in this direction.

—The legislative committee of the Kentucky Educational Association has unanimously endorsed a recommendation of the state educational commission for the organization of a State Board of Education. This is to be brought about by the ratification of two constitutional amendments which have been submitted by the legislature to the people for ratification and adoption.

—Davenport, Ia. The school board has asked the cooperation of parents of high school students in eliminating the practice of driving automobiles to the schoolhouse. Businessmen of the vicinity have complained that the machines of students make the street congested for traffic.

—Cleveland, O. Four experimental "laboratory" schools have been placed in operation for the practical training of boys and girls. Boys will be taught arithmetic through manual training and girls will learn it in the practical operations of measuring cloth or cooking activities.

—New York, N. Y. Adapted army tests have been introduced experimentally in the schools with the opening of the fall term. The tests are intended to provide a better classification of students and to offer work that will be suited to students of all mentalities and all abilities.

—Columbus, O. The employment of substitutes has been reduced to a minimum. Substitutes will not be furnished where only one teacher is absent and where the absence is for one or two days. Principals are required to teach in certain cases in order to reduce the expense.

—"Child Scholarships" designed to enable promising students to continue attendance at school in spite of economic conditions at home, have been announced recently by the National Child Labor Committee. The scholarships have

been provided by private organizations in a number of the large cities of the country and are said to be proving of material assistance in relieving the present unemployment situation. Under the scholarship plan, children are kept out of child labor and out of the labor markets by the establishment of a fund, from which a sum of money approximately equal to the earning capacity of the child is allotted as the amount of the scholarship.

—The school board at St. Joseph, Mo., requests the assistance and cooperation of parents and student body in getting back to sensible and normal dress conditions in the schools.

—The school board at Milton, Pa., has exempted the women from paying the \$5 school tax which is exacted from male citizens. In view of the adoption of woman's suffrage the action is deemed inequitable and unlawful. It is suggested that either the woman vote be ignored or that they be taxed the same as male voters.

—At Portland, Ore., the school board has announced a hearing to be held over a teacher who is under fire as to her qualifications. The trial will be executive and private.

—The Vancouver, Wash., school board has been asked by the W. C. T. U. to bar dancing from the schools. No action taken.

—The school board of the town of Cheshire, Conn., will increase the non-resident high school tuition from \$65 to \$80.

—The pupils of Hamilton, Mass., high school went on a strike because the board returned to the two-session plan. The students finally went back to school pending a reconsideration by the board of the action taken.

—The Watertown, N. Y., school board is serving milk at cost to children in the lower grades. In some cases absolute undernourishment is the reason; in others it is found in a desire of parents that their children be given every assistance in developing clear minds and healthy bodies.

—A high school teacher in New York City, named Thomas P. Murphy received first prize in a contest calling for a non-partisan school

plank. The prize winner contends for a school board elected by the people, a tax levy for the schools, complete control by the school board of school funds, adequate salaries for teachers, a seat for every pupil, physical education and a wider use of school buildings.

—Mere agitation is harmful, often ruinous, especially to a school system, but friendly discussion and constructive criticism and consideration are not agitation and are not "politics," recently said Charles S. Ward, President of the El Paso, Tex., school board. Hence, the El Paso schools are bound to profit by the interest taken in them recently by so many broad-minded progressive citizens.

—At Dartmouth, Mass., the parents have gone on a strike. They refused to send their children to the school, to which they had been transferred, owing to poor roads leading to it.

—Seattle, Wash. The board has removed the administrative offices to the shop and warehouse building.

—Seattle, Wash. The school board has purchased a White three-fourth-ton truck for the use of the supply department. The truck cost \$2,496.

—E. S. Dreher, who served the city of Columbia, S. C., as Superintendent of Public Schools for twenty-three years, has been made Business Manager for the North Carolina College for Women, Greensboro, N. C.

Mr. Dreher resigned as Superintendent in Columbia, in 1918, going overseas later that year as an educational Director with the A. E. F. He was stationed at Treves, Germany, where he had charge of all the Army Schools in that area. For the school year of 1919-1920, he served as Principal of the Shanghai American School, Shanghai, China. Mr. Dreher thus has the very unusual record of having taught on three continents.

—Mr. Fred W. Hein, formerly superintendent of schools at South Milwaukee, Wis., has been appointed principal of the Mound Street School, Milwaukee.

Superior Toilet Equipment for Schools

"HAAS" PLATE 700
For small water service lines,
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The operation of the flushing valves is controlled from the seat, thereby insuring sanitary conditions in the toilet rooms, and the simplicity of their mechanism is the best evidence we can offer for continuously good service at a minimum cost of upkeep.

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Requires large piping,
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'Wash and Bathe in Running Water

**With any Speakman Shower
you can hold the water at 6
gallons per minute—enough for
a cleansing invigorating bath.**



Speakman H-952

The H-895 Mixometer Shower shown in the October issue of this publication has lock shield controlling stops for the purpose of keeping the water flow at the economy point.

The H-952 Mixometer Shower shown here has an Anyforce Head which allows the bather to regulate the volume of water instantly. Also furnished with a hidden control which can be set to allow the desired amount of water to pass. Then the shower face is screwed on again and no one knows that the control is there.

Of course, the Mixometer also saves water for it gives the desired shower temperature instantly—no water wasted trying to get it right. The experience of the Speakman Organization is at the service of any School Board interested in showers.

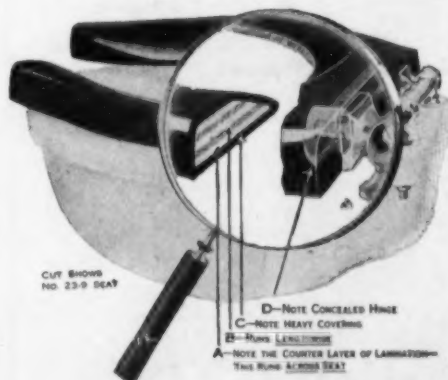
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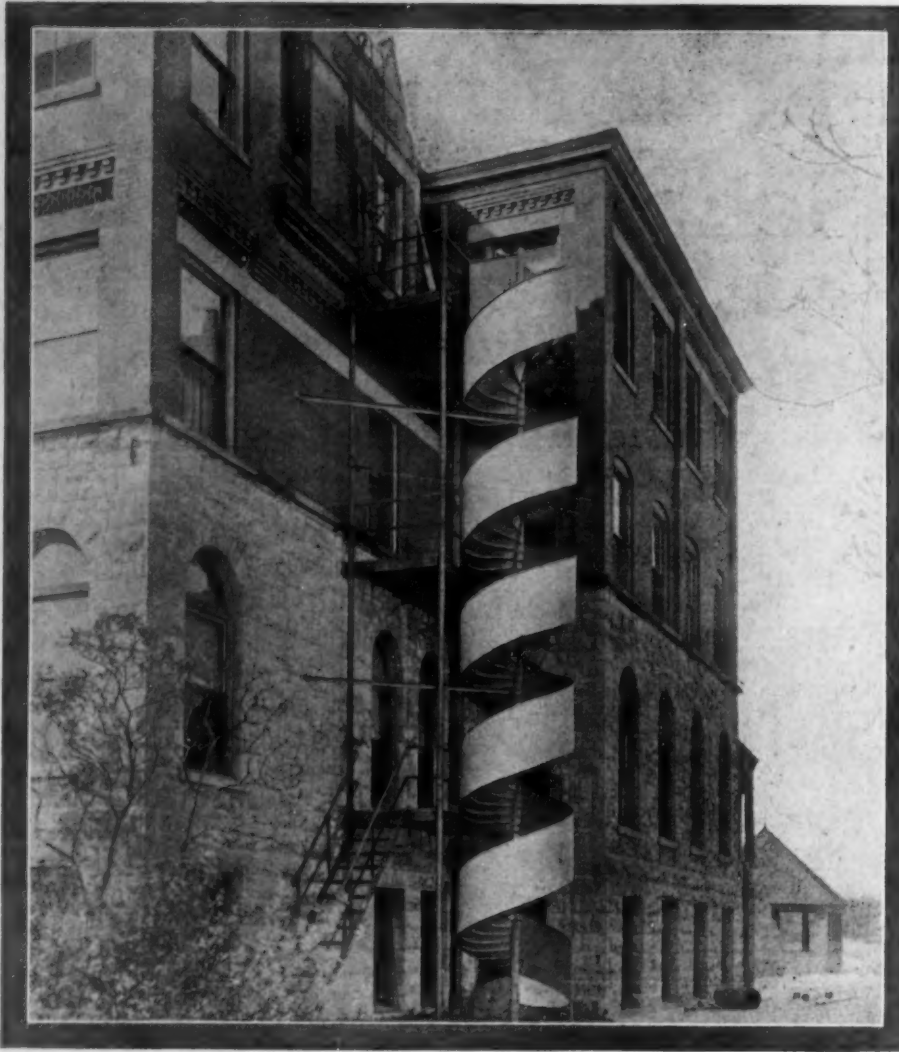


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IN an actual test between two children, the child on the stair escape could descend only ten steps in the time it took the child on the Standard Slide Fire Escape to reach ground and safety.

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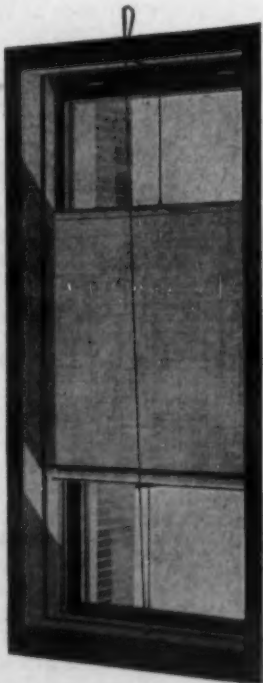
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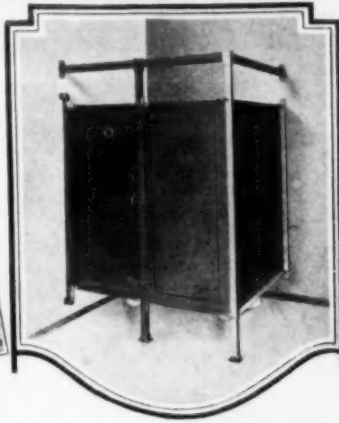


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WEISTEEL Compartments

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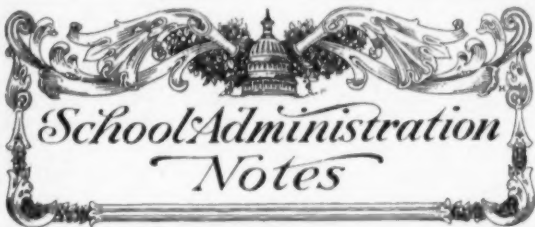
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School Administration Notes

A Study of Age Distribution and Progress.

A valuable contribution to school statistics has recently been made by Supt. F. B. Cooper of Seattle, Wash., in a special report on the subject of age distribution and semester progress in the schools. The survey was conducted during the past year by the department of methods, of which Miss Elizabeth Clarahan is head.

In the survey, the study made of children over-age and under-age, and of those making rapid progress and slow progress, brought out a surprising range in the age of elementary pupils in all grades, as also in their mental capacity and rate of progress.

According to the survey workers, the most valuable result of the study is the scientific basis furnished for future grade supervision by reason of the data on hand for each building, grade and class.

In the belief that cooperation between supervising staff, teachers and principals cannot be carried on without some basis for study and work, the survey was conducted with a four-fold purpose in mind: (1) To study the present classification of pupils and determine how to classify them to better advantage; (2) To find the individual pupils who need careful consideration and plan to meet their needs; (3) To account for the progress or retardation made by pupils so far as possible, with the purpose of comparing gains and losses during school life; (4) To plan the work and visitation of the superintendent's staff so that it may become more helpful to the teachers and principals.

With this aim in view the school history of

32,000 pupils was covered and compilations were made which furnish a complete permanent record for the child, the class, school and system. Graphic presentation of facts is contained in supplementary tables and charts showing gains and losses to the schools, causes of retardation and other important statistics.

The facts collected will, it is believed, furnish a definite objective for all supervisory work and the basis for many follow-up studies such as: (1) A study of each class, its composition, problems and possibilities; (2) A study of each school as a unit and as an integral part of the system; (3) A study of problems which stand out for the system as a whole; (4) A study of the methods of teaching in order to determine their effectiveness; (5) A study of the best plan for supervision.

Most interesting data was obtained regarding a large group of "apparently gifted children", who constitute 19.4 per cent of the school total surveyed. Of these, 9.2 per cent are not only in the number making rapid progress, but are also under-age. A large number of students are also found in the "slow-progress group", which includes 31.9 per cent of the total enrollment, 26 per cent of these being over-age. The size of the group is partly attributable to the inclusion of foreign-born children.

A source of gratification is the holding power of the schools. Whereas throughout the country the enrollment of the eighth grade averages only about one-half that of the first; in local schools, the figures show 14.5 per cent of the elementary enrollment in the first grade and 11.4 per cent in the eighth.

Rate of progress is shown to vary greatly within the class, the school and the various buildings; causes of retardation as language difficulty, economic problems, health, irregular attendance, frequent changes in residence, community conditions, ineffective teaching, lack of adaptation in the course of study, administration of building and the entrance upon school work at too early an age.

The findings have led to a number of recommendations relative to special tests, provision of smaller classes, segregation according to rate of progress, special adjustment, and other remedial measures. It is believed all of the improvements are now possible because the authorities have located and classified the varying types of children they are trying to serve.

ADMINISTRATION NOTES.

—A department of vocational guidance has been established at Central Falls, R. I., by the school board. Mr. James L. Hanley has been appointed as director of the department.

As vocational director, Mr. Hanley will endeavor to discourage children in their desire to leave school, by showing them the value of more education. He will point out and describe the opportunities open to graduates from business, industrial and professional courses. He will impart to them much practical information concerning various occupations, trades and professions and will attempt to create in these boys and girls, ideals of education, training, public service and citizenship. It will also be his work to outline practical courses for those to whom the regular high school course may not appeal.

Highland Park, Mich. Four assembly rooms in the high school containing about four hundred students are at present teacherless, by reason of the fact that the students in these rooms are able to manage themselves and their affairs so satisfactorily that no assembly teacher is required. An honor room alumni association is to be formed in the near future.

The board of education of Duluth, Minn., has adopted a policy that where possible a grade principalship shall include from 25 to 30 teachers under one principal, and it was voted that in filling vacancies this policy should be the governing one.

—Chicago, Ill. Under the organization plans of the new teachers' council, provision has been made for three sections consisting of local, group, and general. The local will consist of teachers

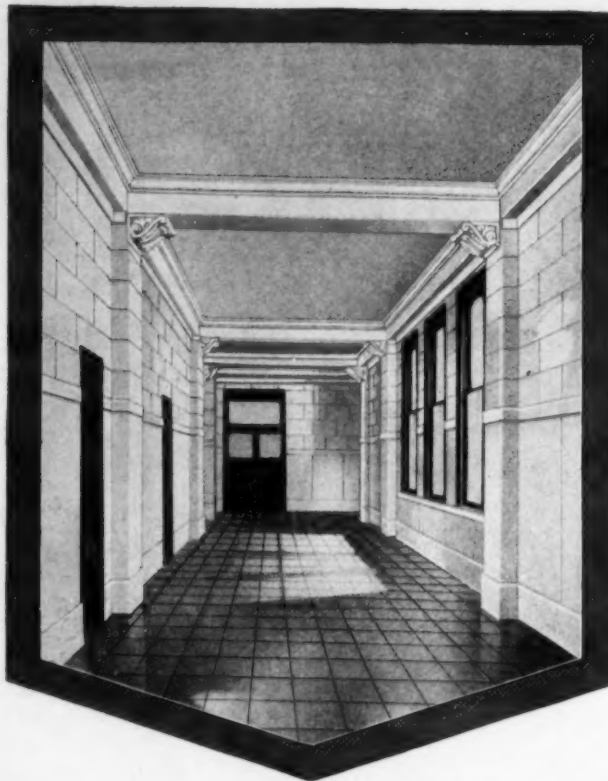
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Vitrolite is sold and installed by local representatives in every large city, trained and experienced in school equipment. Samples and full details of Vitrolite school installations will be sent you upon request.

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School lunchrooms, where diet of students may be supervised, contribute much to mental efficiency—especially to alertness during the afternoon hours.

If it's Pure White it's **VITROLITE**

Vitrolite is a pure white substance, far harder and stronger than marble, that will not stain. When used for wainscoting or toilet partitions it is set in an ELASTIC CEMENT which provides for expansion, contraction and settling.

In a single school, the group of teachers in a number of neighboring schools, and the general of delegates from the several groups.

The girl out of work but who does not care to return to school, because she is much older than those in the classes she will attend, will be provided for in the public schools of Duluth this year. Arrangements have been completed by James A. Starkweather, assistant superintendent of schools, for afternoon classes specially for unemployed girls.

—Cincinnati, O. Five-cent car tickets for school children have been provided with the opening of the fall term. The tickets are sold at this price under the provision of a new law promoted by Supt. R. J. Condon and the board of education. Under the plan, a representative of the Traction Company visits the high schools once a month and sells tickets in strips of forty for \$2. Elementary pupils must purchase their tickets in person at the office of the Traction Company. It is estimated that no less than six hundred elementary pupils use the street cars in going to school.

—The state education department of Illinois has recently issued a report covering high school statistics of the state for the year ending June 30, 1920. The statistics include the number of high schools, enrollment and graduates; the attendance, courses offered, and number of teachers; the expenditures, and the high school property.

There was a total enrollment of 127,821 students in the 838 high schools of the state, with 16,837 graduates divided between 6,998 boys and 9,839 girls.

The total days of attendance in high schools amounted to 20,153,068 days and the average number of days school was in session amounted to 174. The average daily attendance was 115,822 and the average number of days attended by each student was 158.

The total expenditures for high schools amounted to \$16,848,603, the current expenses

amounting to \$13,227,869 and the capital outlay expenses reaching \$3,620,734.

The value of high school buildings and equipment amounted to \$45,621,066, with \$38,585,586 expended in sites and buildings and \$7,035,480 in equipment for the same.

—New York, N. Y. The board of superintendents has recommended that the position of director of commercial branches in high schools be established. The position has become necessary due to the large number of students taking the commercial courses, and to the need of a director who shall keep in touch with business houses, note conditions and methods, call conferences of teachers and report results of meetings with business men. This director should also visit the classrooms, consult with the teachers, suggest changes in subject matter and methods to make the training better adapted to the needs of business.

—On July first the State Department of Public Instruction of Ohio was merged with a newly designated Department of Education. The new department besides undertaking the duties of its predecessors, has control of other fields. It will recommend standards as to preliminary education; determine the standing of professional schools; recommend methods of conducting examinations and of enforcing laws which the several boards must administer.

—The Indiana Parent-Teachers Association is urging simplicity in high school dress. "We have found that many girls have dropped their high school work simply because they felt they could not dress well enough to keep up with their classmates," said President Orme. "What poor girl wants to continue in a classroom where she is surrounded by others elegantly dressed?"

—The Pan-Pacific Educational Conference has urged that the newspaper be used as a textbook in the schools because of its educational value.

—The absentee teacher has become a nuisance in New York City. Superintendent Ettinger has now announced that none but unavoidable ab-

sences will be approved by the board of education.

—The request of the tobacco growers of Connecticut to postpone the opening of the fall term of schools was denied by State Superintendent Grover C. Bowman. The growers desired the services of the children in harvesting tobacco.

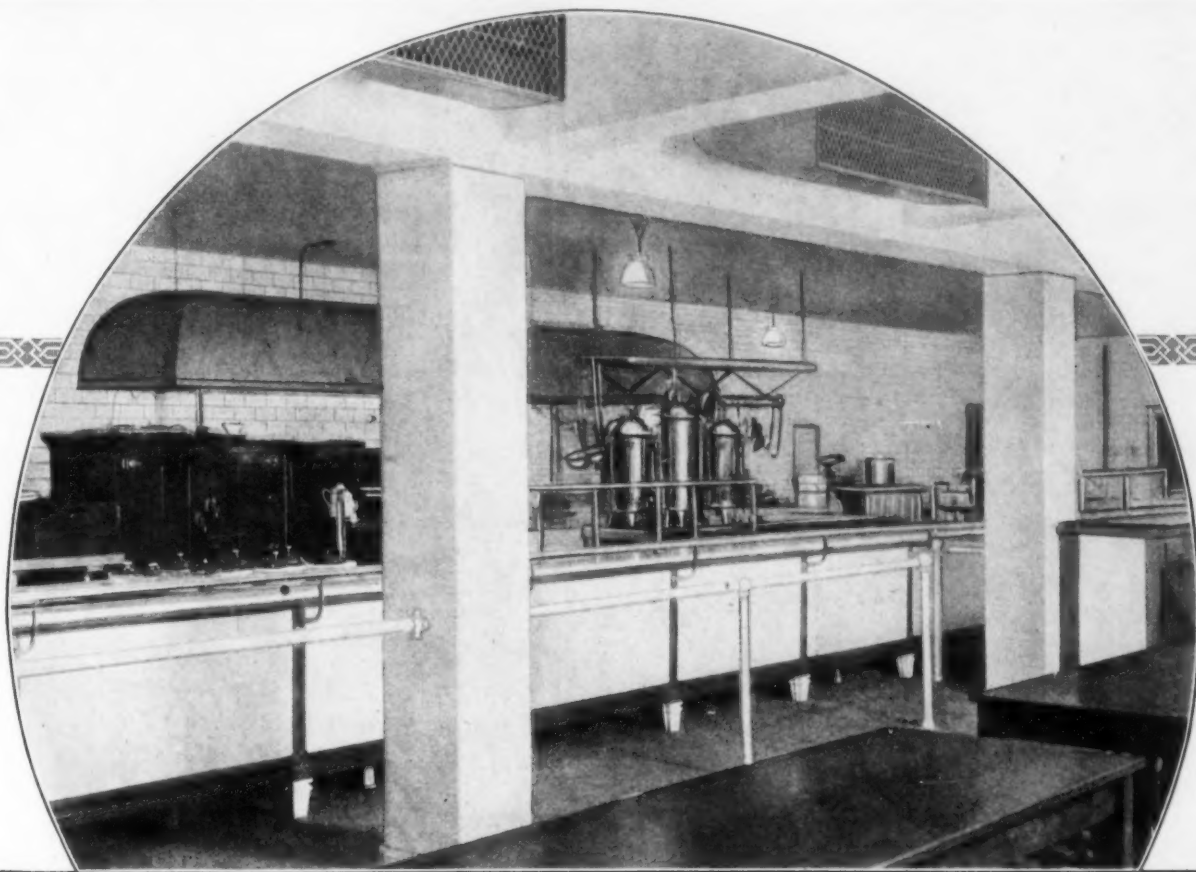
—"There are communities where an old gossip can throw a shawl over head and start out on an afternoon and create disruption enough in a few hours" says the editor of the Palouse, Wash., Republic, "to wreck the work of a teacher who is so far above her that she is not fit to tie the teacher's shoelaces. There is such a thing as a neighborhood making a failure of the school."

Intelligence Tests for School Children

Pupils in the public schools of Newark, N. J., have recently been carefully graded according to intelligence tests. Three main groups have been provided for—supernormal, normal and subnormal. About two per cent of the school population have been found to be subnormal, and more than half of these are already segregated. It is planned to continue the process of segregation until all physical, mental and moral subnormals are removed from the regular classes.

Under the plan, normal children have been divided into what are called 1's, 2's and 3's. The slowest pupils are not held to the same standards as the brighter children, but are rated on work adapted to them. The studies of the 1's, or exceptionally bright children, and the 2's, or medium bright, are graded according to the abilities of the respective groups.

Two classes of twenty children each have been formed for "borderline" cases, one of boys and one of girls. Most of these are dull, over-age children, who do not get along in their grades and are not interested in the work, but merely remain in school until the law allows them to leave. The school aims to interest these children by giving them more handwork than the ordinary class, and by making the work of a more advanced type.



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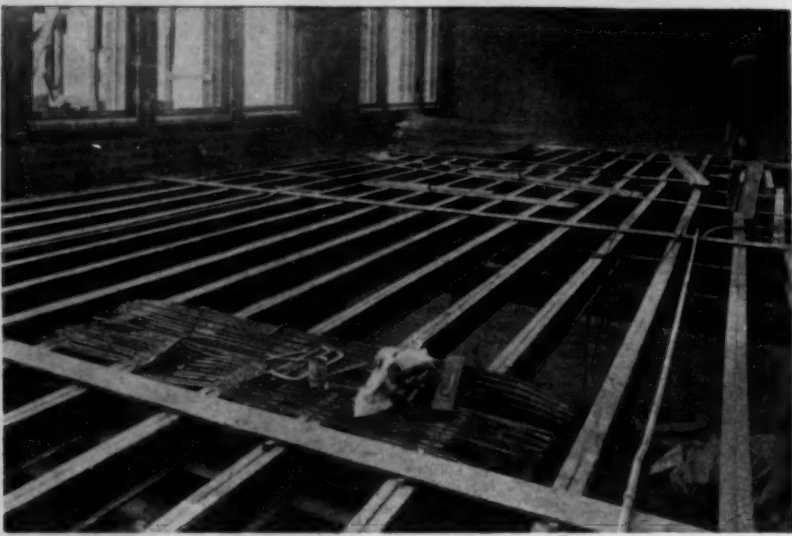
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FLOORS must be fireproof if you would have your new school building safe. There are three or four ways of building incombustible floors. Examine carefully these different methods and you will note that National Steel Joist construction shows speedier erection, conservation of materials, lighter dead weight and actual cash savings.

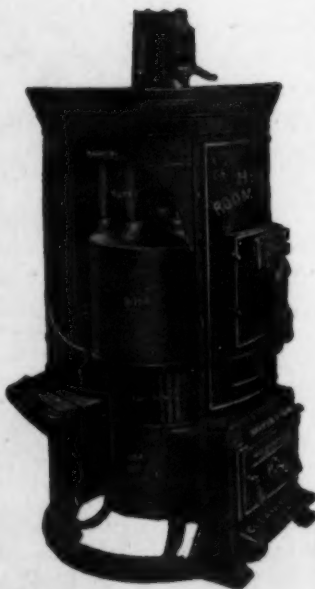
Pamphlet giving comparative cost data on different methods will be mailed on request.

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The Hero System



of heating and ventilating is designed and built for rural schools exclusively.

It will withstand the rough usage given it and should last a life time.

The Hero School Heater

is not a stove—but a special type of heating plant which circulates warmed fresh air for the children to breathe and removes the foul air from the room. Complies with the State Laws.

Write for booklet on heating and ventilating

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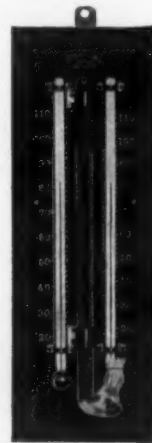
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Prevent overheated class rooms, increase the physical comfort of students, and eliminate fuel waste with

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They are an investment and yield a return in smaller coal bills.

Domestic Science Classes should use Wilder Standard Cooking Thermometers as part of their class equipment. Send for booklet "Sally Sweet's Own Recipes."

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Examine a Durand Steel Locker, and notice the strong, smooth-working hinges and handle, and the multiple locking device inside. Observe the almost entire absence, inside and out, of crannies to catch dirt, or projections to tear clothing. Consider how important this is in keeping lockers clean and sanitary.

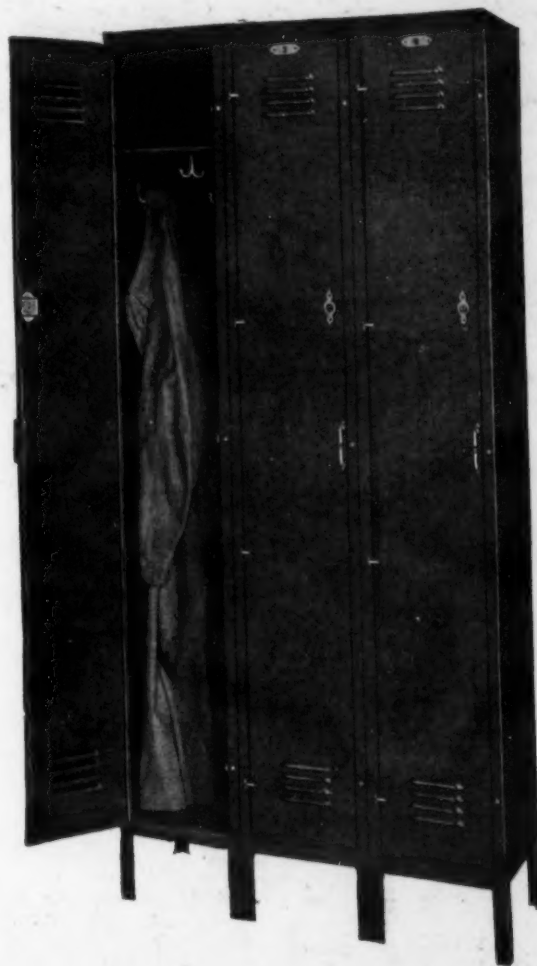
To protect the property of pupils from theft or thoughtless borrowing; to inspire care and neatness; and to prevent the spread of colds and other contagion—Durand Steel Lockers are needed in every school.

We make also Steel Racks, Bins and Shelving. Catalogues on request.

DURAND STEEL LOCKER COMPANY

1521 Ft. Dearborn Bank Building
Chicago, Ill.

1821 Park Row Building
New York City



THE PUBLIC SCHOOLS AND PREVENTIVE MEDICINE.

The present time offers an opportunity for physicians to cooperate with school and health boards, for students will present themselves in varying conditions which call for some investigation. Where real or suspected disability exists the family doctor should welcome the suggestion of the school physician for study of any case among his clientele.

Comparatively few families ask for medical inspection at stated intervals and when a given case provides the opportunity, a diplomatic, courteous lecture on the necessity of professional oversight of children with a full explanation of the dangers often encountered and the great possibility of resulting benefit will lay the foundation for the most effective type of preventive medicine. When people can be convinced that the greater importance lies in anticipating the dangers of disease and the adoption of methods which will help in the development of sturdy children, the dignity of medicine will be more generally recognized.

The problems concerning school children are twofold, affecting the individual child and also his associates, for an apparently healthy carrier may bring grave danger to groups of scholars. Every child with evidence of unhealthy mucous membranes should be submitted to the Schick test. Before very long all children will probably be obliged to have diphtheria susceptibility determined just as vaccination is now required. Where the procedure shall have been universally adopted the mortality of diphtheria will be very

much reduced. Students of this problem confidently believe that the application of present day knowledge will do for diphtheria almost as much as vaccination has done for smallpox.

We should all remember that staying home from school does not kill a child. Mingling with infected children has caused many deaths. Since school life is a necessary feature of civilization the public has a grave responsibility in eliminating every known danger incident thereto. So far as the individual child is concerned, he should not be subjected to the strain of school life as long as he has a cough, abnormal temperature or any evidence of disease which can be remedied or is a source of danger to others.

Cooperate with the school physician?—*The Boston Medical and Surgical Journal*.

CARE OF CHILDREN'S SIGHT.

Dr. Thomas D. Wood of Columbia University, who acts as chairman of the Joint Committee on Health Problems in Education for the National Education Association, has recently given some illuminating facts concerning the great need for care of the eyesight of school children.

Dr. Wood declares that while we know from present examples, what marvelous development may occur through the motor sense, when vision and hearing are absent, still we appreciate the importance of the eyes.

The consideration of the eyes, he declares, involves not only the question of the quantitative capacity of the human eye for receiving impressions but involves the vital problem of how accurate the information is which the mind, the brain, receives through the eye.

The problem of conservation of vision, in the opinion of Dr. Wood, involves three aspects, namely, the eyes of the children, the character of the materials which they see with their eyes, and lastly, the conditions of light illumination under which they use their eyes.

Dr. Wood pleads for hospitals, nurseries and dispensaries which will do their share with reference to the care of children's eyes. He pleads

also that the teachers trained to make their simple tests, shall make their observations regarding the way the pupils use their eyes.

This gigantic task of conservation of children's eyesight is being undertaken by an organization formed for this purpose, the Eyesight conservation Council of America, with headquarters at New York City. The aim of the organization is to create a greater appreciation of the importance of eye care.

HYGIENE AND SANITATION.

In July and August, the health service of New York Chapter of the American Red Cross, provided a public health nurse to visit the homes of the children and to do followup work necessary for the removal of physical defects. The Department of Health, through the division of child hygiene, provided a physician for each district, who was on duty every morning making physical examinations of every pre-school child. Next the child was given a thorough mental test and this was followed by dental tests so that about 1,200 children were completely examined through the efforts of cooperating agencies.

It is pointed out that the health conditions of numbers of these children have been improved as a result of the advance work of the Department of Health and the effective followup by the Red Cross Health Center.

The pre-school demonstration began its activities with a health committee of the Civic Club, under the chairmanship of Dr. Ira S. Wile, which later cooperated with the City Health Department, the Bureau of Child Hygiene, Department of Education, Red Cross Health Service and others, cooperating in the work. The department of education was successful in bringing over 1,000 children of pre-school age to the school centers which were established in eight schools.

—New Orleans, La. With the opening of the schools in September, the health work has been greatly improved. Five additional nurses have been added to the department of hygiene, an

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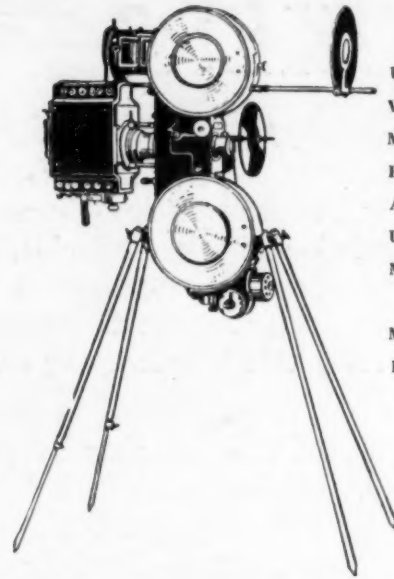
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oculist has been employed and an additional medical inspector has been appointed to investigate all contagious diseases, and to vaccinate school children in the schools. Scales for the weighing and measuring of children in the schools have been placed in every white school. In addition, all pupils from the kindergarten through the fifth grade were given a complete physical examination and nurses cared for pupils with physical defects which called for correction.

—Detroit, Mich. The surveys of last spring have disclosed that 10,000 school children of the city are more than fifteen per cent below average weight. The city council has appropriated \$20,000 the expenditure of which has been entrusted to the department of health.

It is planned to have all pupils weighed and measured and those who are under weight will be given a complete physical examination by the medical inspector. Children who are free from impairing defects which might be responsible for the underweight will be eligible for nutrition classes to be formed in each school. Those who possess the more severe impairing defects will be advised of their condition and urged to have defects corrected.

—The Pennsylvania Department of Health has made plans for carrying through a systematic medical inspection of pupils. In nearly 900 districts of the fourth class, physicians examined the pupils. In the districts of the higher classes, including the cities and larger boroughs, local officials directed the work.

—Philadelphia, Pa. The board of education has authorized the employment of an assistant supervisor whose duty it will be to have active charge of pupils who are retarded in school work because of physical defects.

—Dr. Esple has been appointed school dentist on half-time for the board of education at Kalamazoo, Mich. The appointment covers five days' work each week and carries a salary of \$1,600.

That there be a minimum of one nurse for every 2,000 elementary school children is the

recommendation of the superintendent of Duluth schools which has been adopted by the Duluth board of education. One nurse has been designated as head nurse and she supervises the open air rooms, under the department of health of the public schools.

New Haven, Conn. The city health board has made extensive plans for the improvement of the health of school children. Under the new plan, the duties of the physicians will be to make physical examinations of all children attending school for the first time, to vaccinate all children who cannot afford to have it done by the family physician, to examine pupils referred by the teacher or nurse, to give first aid to the injured, and to examine pupils suspected of having a contagious disease.

The duties of the nurses will be confined to the classroom and the home. The nurses will make inspections of the classrooms every two months, give treatment prescribed by the physicians to those who cannot pay for medical attention, discover physical defects and ailing pupils, give talks and lectures on hygiene, and teach the mothers about the hygienic care of the children and cleanliness of the home.

Westfield, Mass. Active work toward the elimination of malnutrition has been begun with the weighing of pupils in the schools. Pupils who are found to be underweight will be given special attention.

Plans have been made by the Pennsylvania health department to carry into operation a systematic method of medical inspections. In nearly 900 districts of the fourth class, physicians examine the pupils, while in the districts of the higher classes, local officials direct the work.

—East Hartford, Conn. The physical examinations of school children have been continued this fall by the physicians appointed to do the work. In all about 3,000 children will have been examined by the time cold weather arrives. The examinations include height, weight, sight, hearing, adenoids, condition of tonsils, throat conditions, defective teeth, scalp, skin, chest, heart,

lungs, malnutrition and general health conditions. Card records of findings are being prepared for each school and reports of defects are sent to the homes.

—Bangor, Me. An open air school has been opened at the Hamlin School with an enrollment of 25 pupils.

—Upton, Mass. A school nurse will be employed for definite hours of work while the schools are in session. The expense of the nurse will be shared by the schools and the Upton District Nurse Association.

—New Britain, Conn. A committee has been appointed to cooperate with the local dental association in the proposed establishment of a dental clinic. The plan calls for a hygienist and part-time dentist to work in the schools. A portable dental equipment will be used in traveling from one building to another.

—New York, N. Y. The public schools are rendering special service to children with weakened eyesight through the medium of 29 "sight conservation" classes. The children's eyes are tested regularly and the classwork is adapted to their condition. The class at Public School 17, under the supervision of Dr. M. B. Beals of the health department, is divided into two groups, younger grade pupils and older pupils. All the children are provided with glasses and attend the regular lessons in arithmetic, geography, spelling, history, composition, penmanship and drawing.

The books used by the pupils are written in large letters half an inch high. The task of the teacher is to write or print the English compositions in prose or poetry, which the children learn and endeavor to copy. The latest novelty in construction work to teach home-making is building log houses in order to show how they should be properly furnished. The exteriors are made of wooden boxes and the furniture from pasteboard.

The sight conservation pupils have twice as much physical training as normal pupils. They attend the regular instruction and are given

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DAYLIGHT PROJECTION

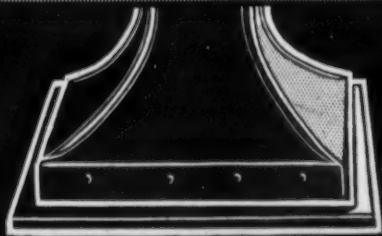
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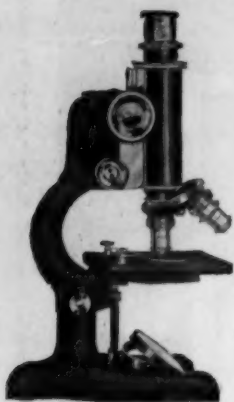
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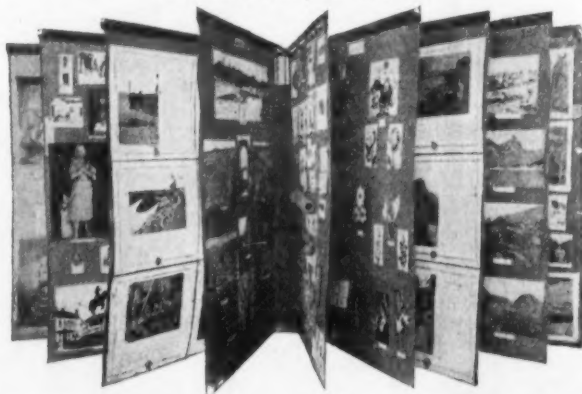
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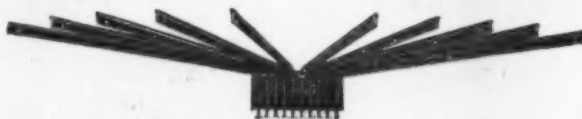
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(Concluded from Page 96)

special instruction an hour each day. Folk dancing lessons which are given once or twice a week are exceedingly interesting to watch.

At public School 6, there are two classes and a third is about to be added. All pupils attend the normal classes for a part of the time and then receive special instruction. As soon as their eyesight is restored, they are put back on full time in regular classes.

The manual work for the classes includes basket making, knitting, crocheting, weaving and cane seating. Bead chains and bags are made of self-constructed beads of colored paper. The conservation classes are in charge of Miss Katherine D. Blake who is enthusiastic over the work and gives it her personal attention.

—More than sixty per cent of New York's school children suffer from foot defects, according to statistics recently gathered. Of this number, ninety per cent can be cured, if treated in time, declares M. J. Lewi, president of the Foot Clinics of New York.

School Luncheons on a Large Scale.

In campaigning against the malnutrition of pupils the board of education of New York City is serving luncheons at cost in 33 schools. Twenty-three more schools are to be added to the service.

The food is prepared in a central kitchen and transported by motor busses in thermos containers to the several schools. All food is bought at wholesale prices. The menu is subject to changes. The children help themselves to food which is served in plates and saucers and pay the bill in accordance with cafeteria method. Here is the menu for one week:

Monday—Buttered roll, 3c; stewed corn, 3c; Stewed prunes, 3c.

Tuesday—Cream of bean soup, cottage cheese and peanut sandwich, beets, hot rice with fruit sauce.

Wednesday—Vegetable soup, 3c; baked beans 3c; bread and butter sandwich, 3c; Vanilla corn-starch with chocolate sauce, 3c.

Thursday—Lima beans and tomato soup, 3c;

butter roll, 3c; baked salmon, 3c; rice pudding, 3c.

Friday—Cream of pea soup, 3c; salmon sandwich, 3c; apple sauce with oatmeal cookie, 3c. Also on each daily menu are the following:

Two unsweetened crackers, 1c; one sweet cracker, 1c; one bar plain chocolate, 1c, and one cup milk (one-half quart), 1c.

The four service women in charge take the money, but don't handle the food. The helpers are selected from the older class of pupils, a different set for each week, according to their class and behavior standard. The latter is considered among the pupils as an honor mark.

SAFEGUARDING CHILD WORKERS.

How one state in the Union has developed unique methods of protecting her young wage-earners is told rather completely in a recent report of the United States Labor Department through the Children's Bureau. The report which is the fourth of a series dealing with the administration of child-labor laws, is an improvement over previous reports which merely summarized methods of administration in some of the states like Connecticut, Maryland and New York.

In Wisconsin, it is pointed out, the state industrial commission has control over both the issuance of employment certificates and the inspection of industrial establishments. It has general supervision over the officers granting working permits and also has sole authority to appoint these officers. The centralized authority is strengthened by the commission's power to interpret legislation through its rules and regulations which are legally binding. The commission's work of protecting children from illegal employment is made more effective by its power to bring civil action, instead of only criminal, for nearly all child-labor violations.

Children between 14 and 17 years of age must secure permits before they can enter industrial employment and be afforded special protection in their work. This is a higher age than that prevailing in most states. The apprentice laws,

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requiring in connection with shop experience a certain amount of formal instruction, together with the vocational school system, giving Wisconsin a unique opportunity for leadership in the vocational training movement.

In spite of its many advantages, it is pointed out that the Wisconsin law has several weak points, one of these being the lack of physical examinations of children entering the industry. The possibility of a child's working without a permit is reduced by an exceptional provision of the workmen's compensation law. If a child is injured while working without a permit, or in a prohibited occupation, the employer must pay three times the compensation ordinarily required and he cannot protect himself. It is expected that the number of employed children will be decreased still further through the operation of laws passed at the 1921 session of the state legislature.

SCHOOLHOUSE FIRE PREVENTION.

T. Alfred Fleming of the National Board of Fire Underwriters delivered an address recently before the National Safety Congress on the subject of "Fire Prevention." After demonstrating the fact that fires are due, as a rule, to common negligence in construction and in the careless use of inflammable materials, he said:

"Similar negligence is shown in the care, maintenance and construction of our schools. A very small percentage of the members of our present boards of education have assumed more than the financial burden of school activities while they are equally responsible for the moral and physical safety of each child under their care. There is a very great disregard of properly established rules in the construction of new buildings and the remodeling of old structures.

"It has been found by experts, that over ninety per cent of the school buildings are more unsafe either structurally or in maintenance than the Collinwood school when it burned causing the death of 173 children and three teachers. Over five schools burn in the United States for each day of the year. Trifles due to carelessness or through thoughtlessness are the causes of the largest percentage of fire casualties and conflagrations."

What Constitutes Good Laboratory Equipment

CHAPTER III. FINISH.

Have you read Chapters I and II?



The word "finish," with which this chapter is headed, is used with a broader meaning than merely that of the coat of varnish or plating of nickel used on the outside of apparatus. It includes these but it is used to include also all of the features which, taken together, determine the impression made upon the eye by the finished piece. In its meaning are included such features as color effects, harmony of appearance and use, choice of materials, workmanship, shape of parts, and elegance of design.

The psychological effect of the use of good laboratory apparatus upon both teacher and pupil deserves careful consideration when the question of equipment is being discussed. A true science teacher has the same feeling for good apparatus that an engineer has for his machinery, an art lover for good paintings, and a fancier of animals for thoroughbred horses. He derives the same thrill from unpacking a new shipment of apparatus that the small boy receives from emptying his Christmas stocking. He feels the pride of ownership in its possession, enjoys cleaning and polishing it, keeps it in good working condition and promptly returns it to its allotted place for safe keeping. The examination of the condition of his laboratory apparatus might well become one of the tests used in the selection of a new science teacher by boards of education.

If a science teacher possessing such instinct is given the privilege of purchasing the kind of equipment which stimulates his pride and creates respect for itself, he will impart this pride and respect to his pupils, who will, as a result, not only take greater care of the apparatus while using it, but will secure better results from its use, thereby increasing their respect and liking for the science itself and hence developing in them an ambition to master its intricacies.

Respect for the tools with which he works and confidence in the accuracy of their measurements may certainly be considered fundamental in the training for any occupation or profession.

It is such facts as these which have led to the demand on the part of the science teacher for "finish" in apparatus, a demand sometimes overcome by a seeming necessity for economy on the part of school administrators and boards of education, who are not familiar with or who do not attach due importance to such considerations. A coat of shellac on a soft pine board may seem sufficient to satisfy the requirements for the base or back for a high school apparatus, but the effect upon the students who use the same piece several years later after it has become soiled, worn, dented and warped, will be quite different from that produced by the use of a polished, hand-rubbed, kiln dried, mahogany finished hardwood piece whose appearance, like that of good furniture, may be kept almost like new with small

effort. The care with which microscopes are used by students may be due as much to their beautifully polished, japanned and lacquered finish, as to the accuracy of their optical systems. When it is recalled to mind that a piece of apparatus carefully made and well finished should last at least twenty years, and retain the respect of both teachers and students throughout its entire life, does the ability to save a few dollars on the purchase price seem so important a factor?

An electrical instrument wound with white, cotton-covered copper wire and mounted on a roughly finished board may operate just as well, but compare the care with which it is handled by the student with that accorded to a nicely finished piece wound with bright green silk covered or enamelled wire and mounted on a polished mahogany base with nickeled fittings.

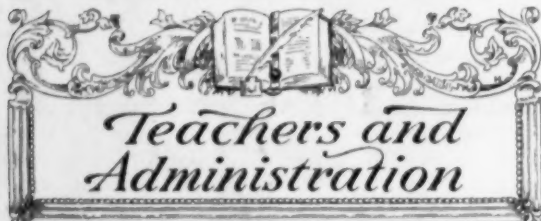
Hand the student a crudely made metal piece painted black, such as an inertia ball, and see how he handles it. Then try him on a nicely made, polished nickeled piece, such as a vernier caliper, carefully kept in a leather case or paper box, and notice the difference. He may drive nails with the one, but you need not fear for the other.

Lay out duplicate pieces of apparatus on the laboratory tables and notice the quickness with which the newest, brightest and best looking ones are seized by the students. Show your students a beautifully designed, handsomely finished, delicately made piece, such as a voltmeter, tell them how finely it measures, and how expensive it is, and see with what respect they treat it when it is placed in their hands.

A coil of wire with a broom straw for a pointer, hung between the poles of a rough magnet, may serve for a galvanometer IF NOTHING BETTER IS AVAILABLE, but the student will attack a Wheatstone bridge experiment with a different spirit, if supplied with a galvanometer which LOOKS at least like a scientific instrument.

These illustrations are a few of many which might be used to emphasize the effect of "finish" on users of scientific apparatus. If they are kept in mind when apparatus is purchased, the mistake will not be made of sacrificing the respect and care of both teacher and student in favor of an apparent saving of a few dollars which soon disappears in the face of prematurely necessary repairs and replacements. When "just as good" apparatus is offered at a lower price, then it is time to inquire into those features which constitute "finish."

Laboratory apparatus constitutes part of the permanent equipment of the school plan, and the satisfaction derived from the use of good apparatus will persist long after the price is forgotten.



Teachers and Administration

—Women teachers are approximately four and one-half times as many as men teachers in the state of Ohio. About one-sixth of all the teachers in the state are high school teachers. There are more than three times as many high school teachers now over the number twenty years ago.

—The teachers of Adams, North Adams, Williamstown, Clarksburg, Savoy, and Florida withdrew from the Berkshire County, Mass., teachers' Association shortly after the meeting last year. These teachers held their first annual convention in North Adams, Friday, September 23rd, with Dr. A. B. Meredith, Commissioner of Education of Connecticut, and Dr. Payson Smith, Commissioner of Education of Massachusetts as speakers.

The officers elected are: President, Burr J. Merriam, North Adams, Mass.; Vice-President, Miss Margaret Tumpane, Adams, Mass.; Secretary-Treasurer, Miss Grace A. Griffin, North Adams.

—Withdrawal from the Federation of Teachers' Associations of New York City was decided upon by the Interborough Association of Women Teachers. The latter organization believes that it can serve the interests of its members best by being independent of the former body.

—New Haven, Conn., reports that teachers are plentiful in that city. Teachers who have for the past two years been in other occupations are returning to teaching.

—Plymouth, Conn., gives \$50 to each teacher from the town who attends a summer school, provided her work is approved by the director.

—Lyndhurst, N. J. The school board has ruled

that teachers shall not wear silk or satin dresses. Extreme shortness in skirt lengths is also prohibited. The ban on expensive materials was made necessary because of its possible influence on pupils.

—The school board of Saanich, B. C., has asked the B. C. legislature to pass a law giving the department of education power to suspend a teacher who breaks a contract to teach. The board has been faced with the problem of teachers accepting positions on city teaching staffs while still members of the Sannich staff.

—Lexington, Mass. The board is faced with the problem of finding a suitable boarding place for the teaching staff. It appears that there are not enough suitable places where teachers may board at reasonable cost.

—Cranston, R. I. The question whether married women shall be allowed to teach in the public schools has been the subject of discussion by the school board. It is pointed out that there are as many married women in the schools as single.

—About three hundred school teachers are being retired in Ohio this year. Some of the teachers are in their seventies and have taught fifty or more years. The pensions are on the basis of one-half the average salary for the last ten years and the payments are in monthly installments.

Milwaukee, Wis. City attorney C. W. Babcock has ruled that the board of education has authority to extend the leave of absence of teachers for cause. Such extension does not preclude a teacher from her pension rights, except the time for which leave of absence was granted, which is not counted to fill out the required period.

—Lake Forest, Ill. The school board has barred married women from teaching positions in the schools.

SUPT. THOMPSON PASSES.

Frank V. Thompson, superintendent of the schools of Boston for the past three years, died suddenly at his home in Brighton District on

October 24th, a victim of peritonitis. Mr. Thompson was 47 years old.

Frank Thompson was born in Batesville, Ark., July 28, 1874. He was graduated from St. Joseph's High School, Manchester, N. H., in 1891 and from St. Anselm's College, Manchester, in 1895.

Soon after his graduation from college, Mr. Thompson became principal of one of the grammar schools in North Walpole, N. H. Later he became an instructor in the high school at Lawrence, and followed this with a few years as principal of a grammar school in the same city.

In 1901 Mr. Thompson came to Boston to accept a junior mastership in the South Boston High School, remaining until 1906, when he was promoted to the headmastership of the High School of Commerce, where he served until 1910. At this time he was elected assistant superintendent of schools, specializing in technical training.

In 1918 Mr. Thompson was elected superintendent of the Boston school system, succeeding F. B. Dyer who had resigned. His election ended a long drawnout deadlock over the determination to elect a Bostonian to the position.

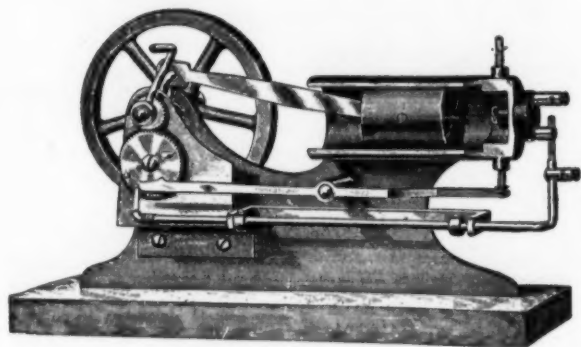
Since his election, Mr. Thompson has done wonderful work in the unification and upbuilding of the school system. He has been untiring in his efforts to improve the schools and his unflinching justice has been an inspiration to his co-workers.

Mr. Thompson had high ideals and he gave practical expression to it in the policies of the administration he attempted to carry out. During the three years of his incumbency he had grown in the esteem and affections of the teachers and the school officials and his death carries a feeling of personal loss to many of the teaching and supervisory staffs. In his untimely death the city of Boston loses an educator who was an untiring worker for the betterment of the school system.

Mr. Thompson is survived by a wife and three children.

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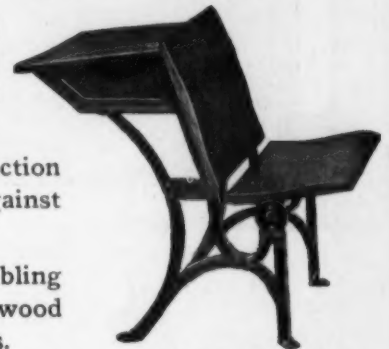
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Teachers' Salaries

Mt. Vernon Schedule.

Under a new salary schedule which went into effect September, 1921, elementary teachers of the first six grades in Mt. Vernon, N. Y., will begin their probationary term on a salary of \$1,300, and will receive an annual increment of at least \$150. This increase continues until the regular maximum salary of \$2,500 is reached. Special teachers and teachers of the seventh and eighth grades will have the \$150 annual increase, their minimum salary being \$1,500 and the maximum \$2,700.

Increases beyond the regular maximum may be made upon the recommendation in favor of the individual teacher, based upon the recognized superior value to the schools of the service of the teacher concerned. This basis of judgment is the one at present used for judging the quality of teaching service, namely, school housekeeping, control of class, spirit of class, teaching ability, professional and social spirit, personal equipment, and general estimate.

High-school teachers will begin their probation service at \$1,500, and will receive the annual increment of not less than \$150 until they reach the regular maximum of \$3,300.

Elementary principals will be paid according to the number of classes supervised by them. Principals in charge of schools of seventeen or more classes are placed in class A, and receive a minimum salary of \$2,000 and a maximum of \$4,000. Principals in charge of eight to sixteen classes are placed in class B, and receive a minimum salary of \$1,500 and a maximum of \$2,500. Principals who have had fifteen or more years

of continuous service in the schools at the time of adoption of the schedule, will be considered as class A.

Elementary and high-school principals and supervisors will receive an annual increment of at least \$200. The regular maximum for the best paid high-school principal will be \$5,000. Increases beyond the regular maximum are, as in the case of elementary teachers, entirely individual.

TEACHERS AND TEACHERS' SALARIES.

"I venture to say that 10,000 former teachers from schools in Chicago, Cook County and elsewhere are now employed in business fields," said Superintendent Tobin of Cook County, Ill. "Many will return to teaching, many have returned. Business jobs have become less attractive. Teaching jobs are being well paid."

—Teachers generally come into any community pretty highly recommended as to manners, morals and mental equipment, says the Burlington, Vt., News, and the society which welcomes them, makes them feel at home, shares its home life and its social life with them, will generally find itself the beneficiary.

—For the first time in four years the slate of New Hampshire is supplied with a full quota of competent teachers, according to a statement made by Miss Harriet L. Huntress, Deputy Commissioner of Education.

—The Brooklyn Teachers' Association has established a legal advisory committee through which teachers requiring legal counsel in private matters may be served. A number of teachers have become involved in rent cases, hence require legal aid.

—The editor of the Manchester, N. H., Union says: "If it is desirable to go back to intellectual impoverishment through incapability in the teaching staff it is desirable also to cut into the teachers' pay. Let the supply of teachers be large enough to make possible the choosing of those of better teaching quality."

—The Teachers' Federation of Anderson, Ind.,

has voted unanimously that it will oppose the proposed salary reduction for next year.

—Evening-school teachers in New York City will hereafter be appointed just as day-school teachers are for a probationary period of three years, and then, if their work is satisfactory, they will receive a permanent license. Formerly, a new eligible list was made at the beginning of each term, and teachers were appointed for that term only. Teachers will be paid as before on a per diem basis.

—Home products are evidently favored in Evansville, Ind., where the entire graduating class of 1921 at Evansville College, has been engaged as teachers in the city schools. This is the first class to be graduated from the department of education of this institution.

—Dismissal from the high schools of all teachers who have not a college degree is expected in South Dakota, where a law has been passed requiring teachers to be college graduates.

—The 27 high schools of New York City began the fall term in September with an enrollment of 80,881 students, according to a report of Clarence E. Meleney, associate superintendent in charge of high schools. The present enrollment represents an increase of 8,767 students over the registration of last June. The September registration by boroughs was: Manhattan, 30,050; Bronx, 8,862; Brooklyn, 31,430; Queens, 9,089, and Richmond, 1,450.

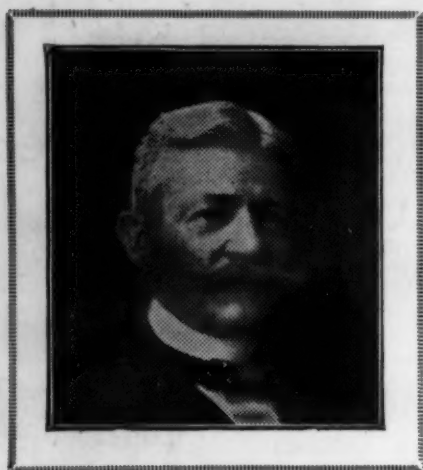
Four Classes of Teachers.

A. H. Martin, Superintendent of Schools, Sauk County, Wis., divides teachers into four classes. First, those that put heart and soul into their work. Activities for public good not limited by contract.

Second, gladly do what is expected of them. Fulfill terms of contract and perhaps a bit more.

Third, careful not to exceed requirements of contract. Teaches here this year, moves on to another school next year, and again the next.

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High School Administration

—The citizens and school patrons, school children and public officials were guests at the dedication of the new McKinley High School, at Canton, O., on the evening of October 21st. The building was planned and the site for the same purchased in 1914. The construction of the first section was begun in 1915 and completed in 1918, while the work on the auditorium and the left wing was begun in 1920 and completed in 1921. The site for the structure cost \$85,331 while the cost of the building and equipment amounted to \$2,349,461. The architect was Mr. George F. Hammond, of Cleveland.

The McKinley High School is a Senior High School designed to meet the needs of no one section, but the children of the whole city. The building is intended to serve the needs of the entire community as one evening has been set aside for the special convenience of each quarter section of the city.

The building is of an imposing character, built on dignified lines and fronting on one of the main streets. It is three stories in height and the front entrance is enhanced by a large portico of white stone columns, surmounted by a flagpole and American flag.

—Newport, Ky. Girls attending the Dayton High School have been asked to refrain from wearing silk hose, French-heeled shoes and georgette dresses at school. The suggestion was made as a means of checking extravagance in dress.

—Attleboro, Mass. The high school enrollment was increased by 135 at the opening of the

term. The increase is attributed to the return of students who withdrew last year and to the lack of employment.

—Butte, Mont. A two-year business course has been introduced in the high school.

—Washington, D. C. Faculty supervision of high school fraternities has been proposed in lieu of their elimination, following a conference of school and business officials. A recent ruling against the fraternities was followed by vigorous protests of the student members of these societies.

—Boise, Ida. Students of the high school have been given control of their own activities by order of the board of education. The experience is intended as a lesson in governmental processes.

—Seattle, Wash. A campaign has been inaugurated in the schools to restrict the hours for high school social activities. It is proposed to start the social affairs at 7:30 and to close them at 11:00 o'clock. The purpose of the new plan is to subordinate these events to scholarship and health.

—Webb City, Mo. A movement has been begun in the high school to inaugurate a uniform style of becoming inexpensive dress for girl students. Silk hose, high-heeled shoes and silk dresses are to be eliminated in favor of middies, dark skirts, low-heeled shoes and cotton hose.

—Livingston, Tex. The holding power of the high school is demonstrated by the fact that the average enrollment in this department per grade is almost equal to the average grade enrollment in the grammar school, being only three students per grade less. Supt. E. K. Barden has been re-elected as head of the school system in recognition of the excellent work accomplished.

—Haverhill, Mass. Under the direction of the principal, a cabinet, composed of the heads of departments and executives of the high school, has been organized. The body meets frequently for the discussion of phases of school activities and passes upon such appointments and recommendations as seem for the best interest of the school.

At the first meeting which was held on September 15th, Principal Clow spoke on the duties of the cabinet and the splendid opportunities for performing definite constructive work among the boys and girls. The duties of the various members of the cabinet were outlined as follows:

The assistant principal and head of the history department, was assigned the supervision of student activities, i. e., class organizations, student council, and the like. The assistant principal and head of the mathematics department, is to check up the results of examinations taken by scientific students and advise regarding the same. The dean of the girls, will assume direction of all social activities.

The head of the business department, is to serve as financial adviser to the various student organizations. The head of the French department, will follow up the students who have gone to college, ascertaining their progress in college as well as the results of their entrance examinations. The head of the department of English, and the executive secretary, are also members of the cabinet.

A committee was appointed to take charge of the chapel exercises. Their duty will be to secure speakers and musical talent for student gatherings in the assembly hall.

Another committee is to plan out the social gatherings of the faculty.

—New York, N. Y. The school board has granted a request of the Stuyvesant High School that the school be given permission to place a tablet in the building in memory of former students who died in the war. The board stipulated that the tablet must have the approval of the art commission, and that the installation must be made under the supervision of the superintendent of school buildings and without expense to the board.

Removes Office.

Mr. George Issenhueth, architect, Huron, S. D., has removed his offices from 215½ to 222½ Dakota Ave., where new and enlarged rooms have been obtained for the practice of architectural and engineering work.

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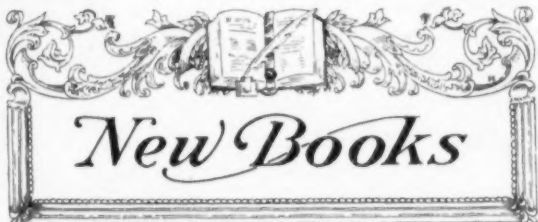
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Texas Under Six Flags.

Centennial Celebration 1821-1921. Paper, 36 pages. Ed. R. Bentley, Editor. Published by the Rotary Clubs of Texas.

This pamphlet contains two complete pageants, one for large cities and another for small schools.

Beginning Latin.

By Perley Oakland Place. Cloth, 398 pages, illustrated. American Book Company, New York, Chicago, Boston.

This first-year book carries the student through practically the entire Latin grammar. It approaches its subject from the standpoint of English and constantly emphasizes the similarities and differences of the two languages. The several sections are carefully arranged to present in sequence the inflections under consideration, a vocabulary, and an application of the former two to translation exercises. Roman life and customs, stories from Roman history, and biographical sketches of great Romans make up the bulk of the material for translation. The tables of declensions, and a complete vocabulary are included in an appendix. The book is excessively and disturbingly illustrated and would, we think, fully sustain interest if more sparingly treated in this respect.

Essentials of Music.

By C. Irving Valentine. Books One and Two. Paper, 34 pages, each. A. S. Barnes & Co., New York, N. Y.

These handbooks are designed especially for high school use and fill a very real need in that they present what teachers have long lacked: a low-cost statement of the rudiments of music, with study assignments and progress problems. The students of music especially in high schools and academies have done excellent work in appreciation and performance, but their knowledge of the materials and vocabulary of music has been notably superficial. The present books are simple, thorough and sufficiently complete for high school and early college work. The progress problems illustrate fully the several lessons and form an applied course in the mechanics of writing music. The book should find wide acceptance.

Daily Lesson Plan Book for Academic Teachers.

By Oscar H. Lipps, Author of "Daily Lesson Plans for Vocational Teachers." Formerly Superintendent of the Carlisle Indian School and

later Chief Supervisor of Indian Education. Paper cover. 400 pages. Published by The Bruce Publishing Company, Milwaukee, Wisconsin.

This book is intended to serve as a practical and serviceable aid to the teacher. It meets in a complete manner the promise implied in its title. The blanks permit the notations of lesson assignments, aim, plan and subject. They are preceded by instructions and suggestions, with brief definitions on a course of study and school program. Simple lesson plans for every grade are provided.

Aesop's Fables.

Large-type text, with eight color plates and 100 line drawings by Edwin Noble. Cloth, 128 pages. Thomas Y. Crowell Co., New York, N. Y.

With the coming of Christmas the season of children's literature is opening. Aesop's Fables are attractively told in word and picture. The text is so well known that it needs no discussion here. The publisher's task has been well performed.

Self-Help English Lessons.

By Julia Helen Wohlfarth and John J. Mahoney. Second book. Cloth, 338 pages, illustrated. World Book Company, Yonkers-on-Hudson, N. Y.

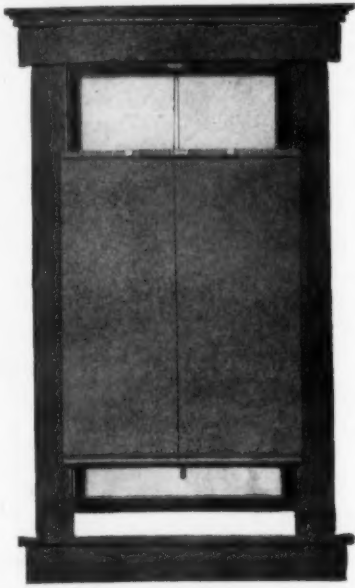
This is a supplementary text arranged on a unique plan and is designed to serve grades five and six. Short stories, interesting events and incidents are made the subject of language lessons. The interest of the pupil is constantly maintained through things that appeal to him, and the real lesson is constantly and effectively driven home.

The text deals with story telling, written compositions, letter writing, study of a poem, etc., etc. The several chapters concern the use of quotations, paragraphs, sentences, word pictures and the exact use of language. The illustrations cover indoor and outdoor life, games, sports, etc., etc.

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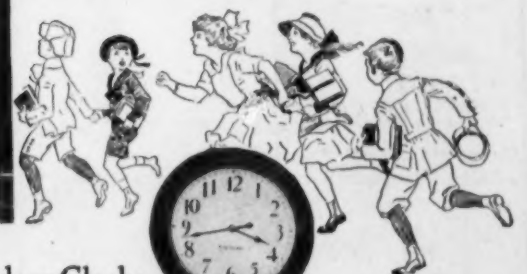
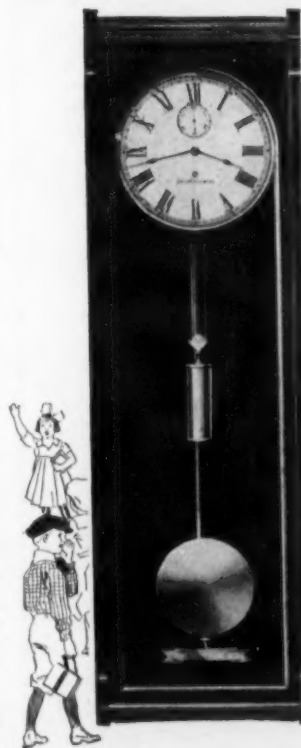
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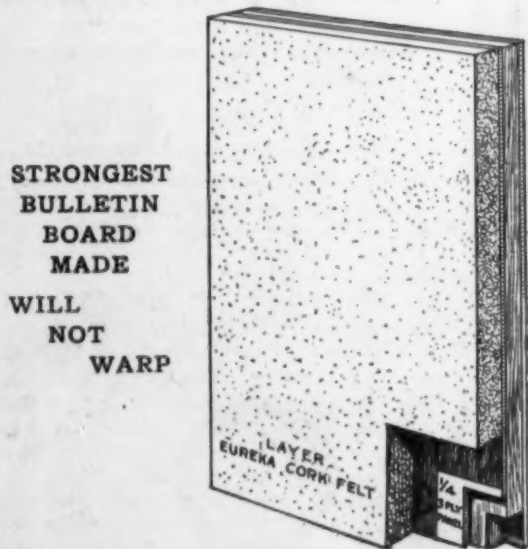
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(Concluded from Page 33)

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INTERPRETING ACHIEVEMENT IN SCHOOL IN TERMS OF INTELLIGENCE.

(Concluded from Page 41)

educational quotients are also low but compare more favorably with the other classes. Table IV shows that the A. Q's (achievement quotients) for Class F, on the whole are high. They are superior to those of Class A in spite of the fact that the intelligence quotient of Class A is the highest of any of the six classes. A supervisor armed with such facts would affect the morale of a teacher far differently than the supervisor of our first illustration. The teacher of a dull class is enabled to compete on equal terms with the teacher of a bright class. While this procedure is perhaps not as satisfactory as interpreting the achievements of individual pupils, the method is applicable. For example, in our illustrative tables, we need but consider the classes A, B, C, D, E, and F as individual pupils and proceed in exactly the same manner.

NEW SCHOOL GROUP AT MARINETTE, WISCONSIN.

(Concluded from Page 53)

generally accepted supervised study scheme, in which each teacher can render service through from five to seven periods instead of only four as under that plan. It centralizes study and provides both supervision and study material and at the same time stimulates and encourages the development of initiative and self reliance on the part of the students.

During the study preliminary to the erection of the building, it was found that from ten to fifteen per cent of the space in each school building was devoted to cloakrooms. This, under present high building costs, means a big expense. Even then the average cloak room is difficult of supervision and not always as conveniently located as might be desired.

A careful study was made of this feature with the result that a plan was evolved which eliminated the usual large space required and which at the same time made possible adequate supervision and provided a far more convenient distribution of wraps than under the ordinary, cloak room or two on each floor plan.

The interior corridor walls in all school buildings are usually from 24 inches to 30 inches thick to provide space for ventilating flues. The space between flues is generally used for cupboards or wall offsets. The corridors in the junior high school are of uniform thickness and all space between flues is used for niches for wraps. The niche is 72 inches in height, and 26 inches deep. The bottom, which is six inches above the floor slants toward a slight

rounded depression making a drain for wet clothes and umbrellas. Each niche is provided with a rack, so arranged that a minimum of space is used for a maximum number of wraps. Niches are found on all floors and each child finds near at hand a place for wraps and umbrella. The niches provided will care for the wraps of 1000 children. The accompanying sketch will show in detail the plan of an individual niche.

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PUBLICATIONS OF INTEREST.

The Constitution of the United States of America. Price, \$0.05. Bureau of Education, Department of the Interior, Washington, D. C. This little pamphlet of 39 pages is printed in handy pocket form for practical everyday use. The small price of five cents makes it within the reach of elementary and secondary schools for classroom use.

Administration of Child-Labor Laws. Part IV, Employment-Certificate System of Wisconsin, by Ethel E. Hanks. Publication No. 85, 1921, Children's Bureau, U. S. Department of Labor, Washington. This study is the fourth in a series of inquiries into the administration of child-labor laws which have been carried on under the direction of Mrs. Helen Sumner Woodbury, formerly assistant chief of the children's Bureau. The report is intended to throw light upon the methods of administration not only in Wisconsin but in any state, which are calculated to produce the best results.

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—New York, N. Y. Certificates recommending advancement of one grade have recently been granted to 12,047 pupils in vacation schools conducted by the board of education, as a result of successful completion of a six weeks' term. The figures show that 78.9 per cent of the pupils registered passed the final examination for promotion. This is the best showing ever made by the opportunity classes, the pupils last year reaching 75 per cent and those of the preceding year 78 per cent. The students are required not alone to pass the final examinations for promotion, but they must also have done satisfactory work in the classroom during the summer and must have been in attendance at least 90 per cent of the time.

As a result of the promotion of 12,047 pupils on their return to the schools this fall, it is estimated that the city has saved over \$500,000 which it otherwise would have cost had these children been held over to repeat the work of last term. The approximate saving on each child is estimated at \$46 and the cost for the classes was a little under \$4 per child. There has been a steady growth in the number of pupils in opportunity classes during the past four years. There were 245 in 1918, 270 in 1919, 343 in 1920, and 403 in 1921. The number of pupils receiving certificates has kept pace correspondingly with the growth of the classes. There were 7,688 certificates issued in 1918, 8,578 in 1919, 10,124 in 1920, and 12,047 in 1921. It is the experience of the school authorities that the opportunity classes tend to relieve congestion which is in part due to non-promotion, particularly in the lower grades. The children who attend are imbued with ambition through a feeling of accomplishment and there is an inducement for further advancement.

—A campaign for more sleep for children has been waged for a year by Superintendent B. E. McCormick of La Crosse, Wis. Mr. McCormick holds that regular attendance, good physical condition and plenty of sleep, at least twelve hours a night, will tend to reduce the number of failures.

—Mr. Jasper L. McBrien, formerly school extension specialist in the Bureau of Education, on October first, became head of the Department of Rural Education, of the Indiana Normal school, at Terre Haute. Mr. McBrien was a member of the bureau's staff for the past eight years.

—Mrs. Mary C. Denny has been nominated for the office of county school trustee for Putnam county, Tenn. Mrs. Denny is the first woman to be nominated for this office in Tennessee.

—Allen children have the same right to attend the public schools of Texas as do the children of citizens, according to an opinion given recently by the attorney general. A Mexican boy had been refused admittance because his parents were Mexicans and the child was born in Mexico.

—A survey of 180,000 pupils in Ohio, conducted recently by the teachers of the state under the direction of the state education department, shows that 24.5 percent are retarded at least one year. The same proportion in the state as a whole means that approximately 240,000 of the Buckeye State are retarded.

In cities, the survey shows that 23.2 per cent of the pupils are retarded, while in villages and rural districts, it amounts to 25.9 per cent. In Hardin County, in ten schools, 160 children or 51.5 per cent are retarded.

The condition, according to State Supt. V. M. Riegel, requires that 240,000 individual cases must be studied with a view of determining the cause of retardation and the possibility of bringing the pupil up to standard.

—New York, N. Y. The board of education has appealed to the state authorities for an advance payment of \$7,225,000 from the funds due next January. The financial situation is attributed to the drastic reduction of \$27,000,000 which the Hearst-Hylan administration made in the budget early this year. Under a state law, the commissioner of education is permitted to apportion certain state educational funds at the rate of \$700 per teacher employed, together with certain other small amounts for various activities. Failure

of the state to assist the local school authorities will mean that 25,000 school teachers of the city will be without salaries for three months.

—Louisville, Ky. An enabling ordinance, placing on the November ballot the referendum for a \$1,000,000 bond issue to carry five per cent interest, has been passed by the lower board of the general council.

—The state fire marshal of Indiana has sent out a special bulletin relating to fire prevention in the schools of the state. The fire marshal quotes statistics on fire dangers and fire losses and calls attention to means which can be taken to prevent fires in schools.

—Jeffersonville, Ky. The school board has adopted a budget for 1922 calling for expenditures totalling \$98,715.

—Billings, Mont. The board has increased the tuition fund for non-resident high school students from \$40 to \$70. For pupils in the grade schools, the tuition has been raised from \$30 to \$40.

—The first installment of the state school fund of Kentucky for the several county, graded and city schools amounted to \$661,694. The total school fund for the year is estimated at \$3,970,000, based on \$6.00 per capita for \$650,849 children.

—Seattle, Wash. A reduction of more than a million dollars in school expenditures has been planned for 1922. The total school saving will be \$579,045 which is 11.11 per cent of the expenditures for 1921. The saving was effected by means of reductions in officials' salaries, maintenance of offices, election costs, textbooks and supplies, fuel, light and power, and upkeep of buildings and grounds.

—Billings, Mont. An enumeration of persons of school age has been begun under the direction of a trained officer. The placing of the census in the hands of a trained director is expected to yield better returns in the way of names. In former years, a good many names were missed with a consequent loss to the schools in state money.

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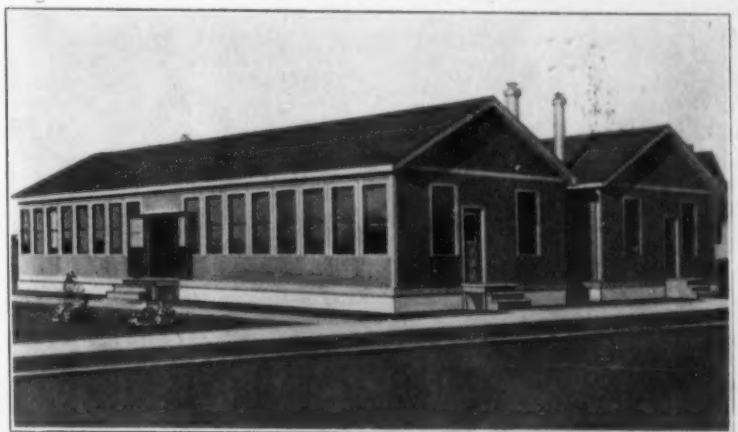
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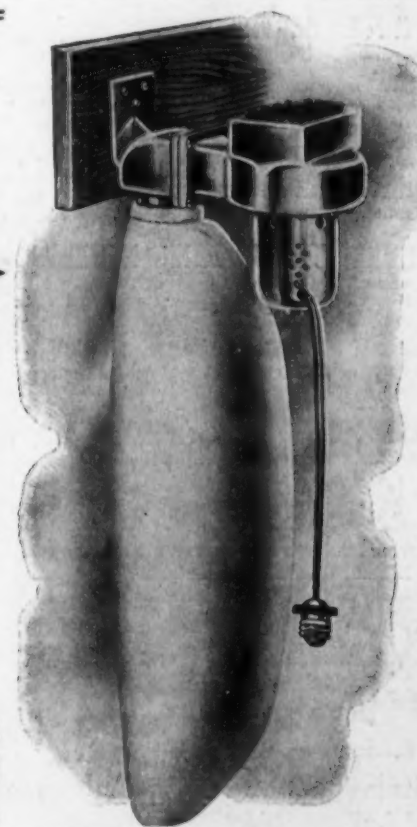
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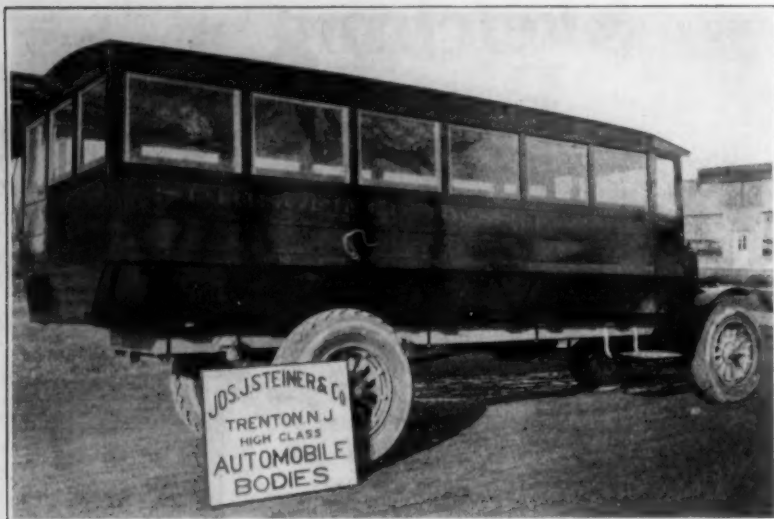
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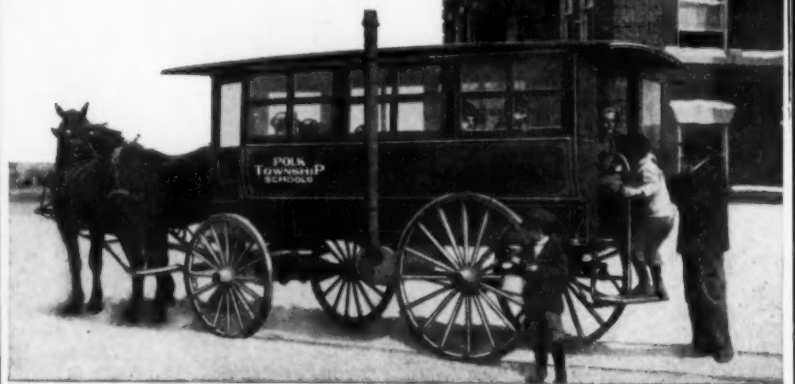
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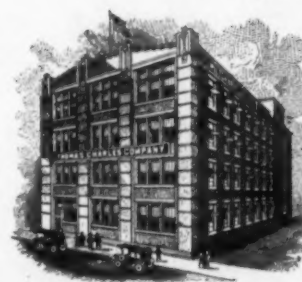
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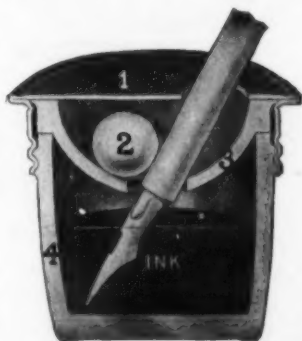
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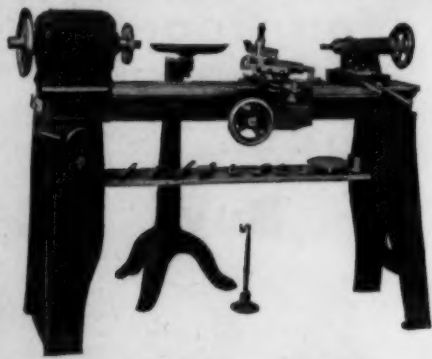
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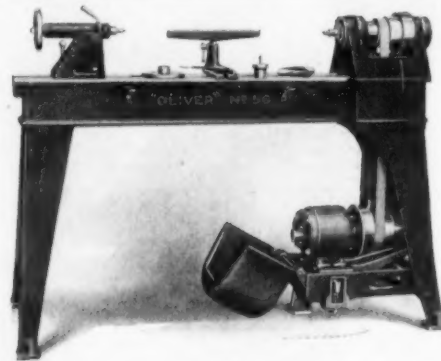
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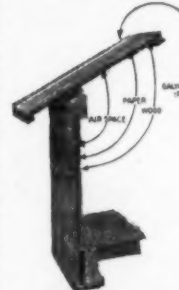
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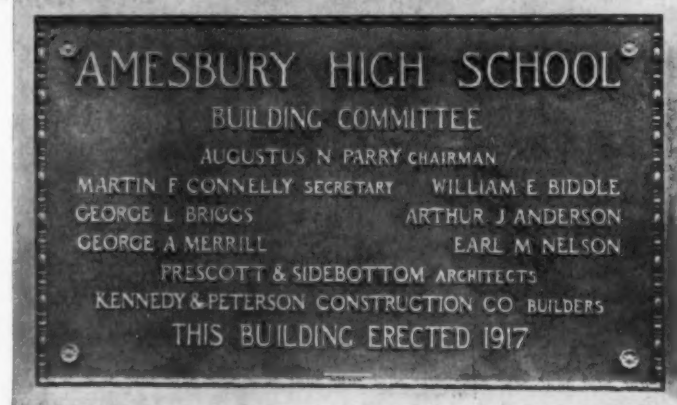


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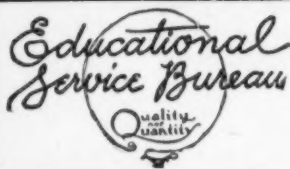
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AFTER THE MEETING



Certainly So.

Teacher (after lesson on snow)—"As we walk out on a cold winter day and look around, what do we see on every hand?"

Pupil—"Gloves!"—Life.

Back Numbers.

Concerning college football teams,
Too oft it comes to pass,
The man who's halfback in the field
Is 'way back in his class.

—Boston Transcript.

The Scientific Mind.

"This is a sixteen-year-old Royal Princess. The mummy has been preserved for two thousand years."

"Does that include the sixteen years she lived?"

She Knew.

The teacher had written 92.7 on the black-board, and to show the effect of multiplying by ten rubbed out the decimal point. She then turned to the class and said:

"Now, Mary, where is the decimal point?"

"On the eraser, teacher," replied Mary, without hesitation.

Teacher's Symptoms.

"Jimmy," said the fond mother to her smart eleven-year-old, "what became of that little pie I made for you as a treat yesterday? Did you eat it?"

"No, mama," answered Jimmy, with a grin; "I gave it to my teacher at school instead."

"That was very nice and generous of you, Jimmy," complimented his mother. "And did your teacher eat it?"

"Yes; I think so," answered Jimmy. "She wasn't at school today."

A Manner of Speaking.

Professor of Chemistry—If anything should go wrong in this experiment, we and the laboratory with us might be blown sky high. Come closer, gentlemen, so that you may be better able to follow me.

He Knew.

Teacher—"Don't you know that punctuation

means that you must pause?"

Willie—"Course I do. An auto driver punctuated his tire in front of our house Sunday and he paused for half an hour."—Boston Transcript.

Teacher—"Can you tell me the meaning of the word 'lazy'?"

Small Stanley—"Yes'm. It's what a fellow is who always wants his little sister to do things for him."

The Real Reason.

"John," asked the teacher, "what is a synonym?"

"A synonym," said John, "is the word you use when you can't spell the other one."—The Watchman-Examiner (Philadelphia).

A teacher who had given a lesson on geometrical drawing asked her class the question "How can you make a Maltese cross?"

One bright little girl raised her hand at once, and on being asked for the answer replied without hesitation: "Please, teacher, step on its tail."

Teacher: Jimmy, stop that wriggling! Are you sitting on a tack?

Jimmy: No ma'am—my winter underwear.

Vocational Training.

"I wouldn't have my boy taught grammar at all, if I had my way."

"That's a strange idea. Why not?"

"I intend that he shall be a writer of popular songs."—Boston Transcript.

Peace at Any Price.

"What's the shape of the earth?" asked the teacher, calling suddenly upon Willie.

"Round."

"How do you know it's round?"

"All right," said Willie; "it's square then. I don't want to start any argument about it."

Mrs. Cool: "Are you first in anything at school, Cecil?"

Cecil: "First out of school when the bell rings, mother."

"How's your boy, Willie, getting along with his studies?"

"Pleasantly," replied Mr. Zeedy. "He don't bother 'em none."

In a socialized recitation the pupils were asking one another questions.

Question by one pupil: "Who invented writing?"

Answer: "I don't know who invented it, but Mr. Palmer has charge of it now."



When a Feller Needs a Friend — N. Y. Tribune



NEW TRADE PRODUCTS.

New School Piano. The Miessner Piano Co., of Milwaukee, Wis., has recently issued a handsomely illustrated booklet describing the new Monogram "Baby Upright" Piano for school use.

The piano which is the result of the experiments of Mr. W. Otto Miessner in the construction of a fine instrument for school purposes, is made of the highest grade of materials and gives evidence of the most careful workmanship in its construction.

The piano stands but three feet seven inches high and measures only four feet, six inches in width and two feet in depth. It occupies one-third the floor space needed for a grand and only two-thirds the wall space required for a larger upright. The piano has a full-sized keyboard of 88 notes and keys of standard size so that it has all the advantages of a large instrument without the disadvantages of size, bulkiness and difficulty of moving.

The Monogram is especially suited for schools because of the reduced height which permits of supervision by the instructor, and also by reason of the ease with which it can be moved from place to place.

Offer New Wiring Conduit. The Dahlstrom Metallic Door Company has just placed on the market a new type of base-board for offices and public buildings that affords a satisfactory solution for the problem of electric wiring. The base-board which is made of metal entirely, is arranged to afford two raceways for electric wiring to take care of all lighting, telephone, call bell, buzzer, and other wires such as are likely to be used in an office or a school room.

Condu-Base, as the new product is termed, is manufactured of non-resisting metals and is provided with a natural bronze mop mould that will not be affected by water, etc. The Base is approximately eight inches high and less than two inches deep, so that it occupies practically the same space as the ordinary wood base-board. It is arranged with a removable front that permits of almost instant examination of the wires and that reduces the cost of installing and removing wires to a minimum.

Condu-Base eliminates any concern of future changes in electrical equipment or in the location of outlets, conduits and wires. It avoids the placing of wires on walls or in special wire mouldings. It is fireproof and entirely safe from the electrical standpoint and is manufactured on a par with the well-known Dahlstrom doors, and other fire-proof products. Literature is available for school authorities.

Air Cooling Fan. The American Blower Company, Detroit, Mich., has placed on the market its "ABC" air cooling fan for schools, factories, stores and public buildings. The fan is a simple and efficient means of washing, cooling, humidifying and delivering a large volume of air at a low initial and operating cost.

The advantages claimed for the fan are that it washes and purifies the air by removing dust and dirt; it humidifies the air by evaporation of spray water diffused through it; it cools the air by a process of evaporation which withdraws the heat, and it combines a fan and washer in one unit, doing the work of both at practically the same cost of operation of the fan alone.

In construction, the mechanism comprises a washing wheel of perforated steel plate; a spray system composed of stationary spray heads supported from a fan inlet by pipes and extending into a mist chamber; a housing consisting of heavy sheet steel shell with inlet openings on one or both sides, and the bearings consisting of two heavy ring-rolling, self-aligning bearings for main shaft, mounted on two extra heavy cast iron pedestals.

The firm is prepared to offer capacity tables and tables of dimensions for the fans.

AMERICAN
Moline
Gills &
Payne Co
Chicago
AUD
American
Empire
Heywood
Kundt
N. J. Sch
Peabody
Stelner &
BLAC
N. Y. S
Rowles
Weber C
BLA
Keenan
Natural
Penna.
Holden
Peckham
Kerato
B
American
Charles
Education
Ginn &
Gregg P
Heath &
Houghton
Laidlaw
Little, F
Longman
The Mac
Merrill
Newson
Palmer
Pittman
Roberts
World B
B
Kewau
Paddock
Wiese L
Palmer
Roberts
BU
Abesto
Indiana
National
Republic
CAF
Pick &
Nystrom
Weber C
Dudfield
Central
Chicago
C
Chemica
C
Landis
Standar
Thomas
America
Binney
National
Peckham
Rowles
Weber C
Cabot,
D
National
DI
Union S
DIF
Wilson
Welch
Palmer
Roberts
D
Univers
DOM
Christie
Kewau
Mutach
Peterson
Pick &
Sheldon
Wiese L
Norton
Bargent
If an

School Goods Directory

AIR CONDITIONING APPARATUS

American Blower Co.
Moline Heat

ASH HOISTS

Gillis & Geoghegan
Payne Company, F. S.

ATHLETIC GOODS

Chicago Gymnasium Equipment Co.

AUDITORIUM SEATING

American Seating Co.
Empire Seating Co.
Heywood Bros. & Wakefield Co.
Kundts Company, The Theodor
N. J. School Furniture Co.
Peabody School Furniture Co.

AUTO BODIES

Steiner & Co., J. J.

BLACKBOARDS—COMPOSITION

N. Y. Silicate Book Slate Co.
Rowles Co., E. W. A.
Weber Costello Co.

BLACKBOARDS—SLATE

Keenan Structural Slate Co.
Natural Slate Blackboard Co.
Penna. Structural Slate Co.

BOOK COVERS

Holden Patent Book Cover Co.
Peckham, Little & Co.

BOOK LEATHER

Keratol Company

BOOK PUBLISHERS

American Book Company
Charles Company, Thomas
Educational Publishing Co.
Ginn & Company
Gregg Publishing Co.
Heath & Co., D. C.
Houghton, Mifflin Co.
Laidlaw Brothers
Little, Brown & Company
Longmans, Green & Co.
The MacMillan Company
Merriam Co., G. & C.
Newson & Company
Palmer Co., A. N.
Pitman, Isaac & Son
Roberts & Meek
World Book Company

BULLETIN BOARDS

Kewaunee Mfg. Company
Paddock Cork Company
Wiese Laboratory Furniture Co.

BRUSHES

Palmer Company, The
Robertson Products Co., Theo. B.

BUILDING MATERIALS

Asbestos Buildings Co.
Indiana Limestone Quarrymen's Assn.
National Terra Cotta Company
Republic Fireproofing Co.

CAFETERIA EQUIPMENT

Pick & Company, Albert

CHARTS

Nystrom & Co., A. J.
Weber Costello Company

CHALK TROUGHS

Dudfield Mfg. Company

CHEMICALS

Central Scientific Co.
Chicago Apparatus Co.

CHEMICAL CLOSETS

Chemical Toilet Corporation

CLOCKS—PROGRAM

Landis Eng. & Mfg. Co.
Standard Electric Time Co.
Thomas Clock Co., Seth

CRAYON

American Crayon Co.
Binney & Smith
National Crayon Co.
Peckham, Little & Co.
Rowles Co., E. W. A.
Weber Costello Co.

DEAFENING QUILT

Cabot, Inc., Samuel

DESK RENOVATORS

National Wood Renovating Co.

DICTIONARY STANDS

Union School Furnishing Co.

DIFFUSELITE FIXTURES

Wilson Corp., Jas. G.

DIPLOMAS

Welch Mfg. Co., W. M.

DISINFECTANTS

Palmer Company, The
Robertson Products Co., Theo. B.

DISPLAY FIXTURES

Universal Fixture Corp.

DOMESTIC SCIENCE EQUIPMENT

Christiansen, C.
Kewaunee Mfg. Company
Mutschler Brothers Co.
Peterson & Co., Leonard
Pick & Co., Albert
Sheldon & Co., E. H.
Wiese Laboratory Furniture Co.

DOOR CHECKS

Norton Door Closer Co.
Sargent & Company

DRAWING MATERIALS

Devoe & Reynolds Company

DRAFTING ROOM FURNITURE

Christiansen, C.
Economy Drawing Table & Mfg. Co.
Kewaunee Mfg. Company
Sheldon & Co., E. H.
Wiese Laboratory Furniture Co.

DRINKING FOUNTAINS

Nelson Mfg. Company, N. O.
Rundlo-Spence Mfg. Company

EDUCATIONAL FILMS

Fitzpatrick & McElroy

ERASERS

Palmer Company, The
Rowles Company, E. W. A.
Weber Costello Co.

ERASER CLEANERS

National Wood Renovating Co.
Weber Costello Company

FENCES—WIRE & IRON

Cyclone Fence Co.

FILING SYSTEMS

Library Bureau

FIRE ESCAPES—SPIRAL

Dow Company, The
Standard Conveyor Company

FIRE EXIT LATCHES

Sargent & Company
Van Kannel Revolving Door Co.
Vonnegut Hardware Co.

FIRE PROOF DOORS

Dahlstrom Metallic Door Co.

FIREPROOFING MATERIALS

Asbestos Buildings Co.

FLAGS

Annin & Company

FLAG POLES

Nelson Mfg. Co., N. O.
Newark Steel Post Co.

FLOOR DEAFENING

Cabot, Inc., Samuel

FLOORING—COMPOSITION

Marbleoid Company

FLOORING—FIREPROOF

Marbleoid Company

FLOORING—MAGNESITE, COMPOSITION

Marbleoid Company

FLOORING, MASTIC

Moulding Brick Co., Thomas

FLUSH VALVES

Haas Co., Philip

FOLDING PARTITIONS

Wilson Corp., Jas. G.

FURNITURE

American Seating Co.
Cleveland Seating Co.
Columbia School Equipment Works
Columbia School Supply Company
Economy Drawing Table & Mfg. Co.
Empire Seating Co.
Heywood Bros. & Wakefield Co.
Kundts Company, The Theodor
Library Bureau
N. J. School Furniture Co.
Peabody School Furniture Co.
Rowles Co., E. W. A.
Scientific Seating Co.
Standard School Equipment Co.

FURNACES

Hero Furnace Company, The

GLOBES

Nystrom & Co., A. J.
Weber Costello Co.

GYMNASIUM APPARATUS

Chicago Gymnasium Equipment Co.
Medart Mfg. Co., Fred
Narragansett Machine Company

HEATERS

Charter Oak & Stove Mfg. Co.
Hero Furnace Company, The
Smith System Heating Co.
Virginia School Supply Company

HEATING SYSTEMS

Dunham Company, O. A.
Webster & Co., Warren

HEATING AND VENTILATING APPARATUS

Bayley Mfg. Company

INK

Commercial Paste Company
Rowles Co., E. W. A.

INK WELLS

Squires Inkwell Company
U. S. Inkwell Company

JANITORS' SUPPLIES

Lewis, Samuel
Palmer Company, The
Pick & Co., Albert
Robertson Products Co., Theo. B.

KINDERGARTEN SUPPLIES

Charles Company, Thos.

LABORATORY FURNITURE

Columbia School Supply Co.
Kewaunee Mfg. Company
Peterson & Co., Leonard
Sheldon & Co., E. H.
Wiese Laboratory Furniture Co.

LABORATORY SUPPLIES

Central Scientific Co.
Chicago Apparatus Co.
Rowles Company, E. W. A.

LANTERN SLIDES

Keystone View Company

LIGHTING FIXTURES

Beardslee, Chandelier Mfg. Co.

LIQUID SOAP

Imperial Brass Mfg. Co.
Robertson Products Co., Theo. B.
Liquor Floor Hardener
Sonnenborn Sons, L.

LOCKERS

Armor Clad Mfg. Company
Durabilt Steel Locker Co.
Durand Steel Locker Co.
Federal Steel Fixture Co.
Lyon Metallic Mfg. Co.
Medart Mfg. Co., Fred
Narragansett Machine Company

LOCKS—KEYLESS

Miller Keyless Lock Co., J. B.

MANUAL TRAINING BENCHES

Christiansen, C.
Columbia School Supply Co.
Oliver Machinery Co.
Sheldon & Co., E. H.
Wiese Laboratory Furniture Co.

MAPS

Nystrom & Company, A. J.
Weber Costello Company

MEMORIAL TABLETS

Russell & Sons Co., Albert
Williams, Inc., John

MICROSCOPES

Bausch & Lomb Optical Co.
Spencer Lens Company

MOTION PICTURE MACHINES

DeVry Corporation
Fitzpatrick & McElroy
Safety Projector & Film Co.
Victor Animatograph Co.

PAINTS

Devoe & Reynolds Co.
Wilson Corp., Jas. G.

PAPER TOWELS

A. P. W. Paper Company
Holden Patent Book Cover Co.
Palmer Company, The
Robertson Products Co., Theo. B.

PARTITIONS—WIRE

Cyclone Fence Co.

PAPER TOWEL FIXTURES

Palmer Company, The

PASTE

Commercial Paste Company

PENCILS

American Crayon Co.
Dixon Crucible Co.
Faber, Eberhard

PIANOS

Jackson Piano Co.
Messner Piano Company
Smith, Barnes & Strother
Steger & Sons Piano Mfg. Co.

PLAYGROUND APPARATUS

Chicago Canvas Goods & Flag Co.
Chicago Gymnasium Equipment Co.
Medart Mfg. Co., Fred
Newark Steel Post Company

PLUMBING FIXTURES

Brunswick-Balke-Collender Co.
Chemical Toilet Corp.
Clow & Sons, James B.
Haas Co., Philip
Hoffmann & Billings Mfg. Co.
Nelson Mfg. Company, N. O.
Rundlo-Spence Mfg. Company
Speakman Co.

PLAYGROUND ENCLOSURES

Cyclone Fence Co.

PORTABLE SCHOOLHOUSES

Alexander Lumber Company
American Portable House Co.
Manchester Mfg. Co.
Mershon & Morley

PROJECTION LANTERNS

Bausch & Lomb Optical Co.
Enterprise Optical Mfg. Co.
Spencer Lens Co.
Victor Animatograph Co.

RECORD SYSTEMS

Library Bureau
Williams & Sons, Inc., C. F.

SAFETY STAIR TREADS

American Abrasive Metals Co.

SAVING SYSTEMS

American Banking Machine Corp.

SCALES

Chicago Scale Company

SCENERY

Twin City Scenic Co.

SCIENTIFIC APPARATUS

Central Scientific Company
Chicago Apparatus Company
Rowles Company, E. W. A.
Schaar & Company
Welch Mfg. Co., W. M.

SEWAGE DISPOSALS

Waterman-Waterbury Co., The

SHOWERS

Hoffmann & Billings Mfg. Co.
Speakman Co.

SIGNAL SYSTEMS

Palmer Company, The
Couch Co., Inc., S. H.

SPRING HINGES

Lawson Mfg. Company

STATIONERS

Blair Company, J. C.

STEEL LUMBER

National Pressed Steel Co.

STEEL SASHES

Lupton's Sons Co., David

SWEEPING COMPOUNDS

Robertson Products Co., Theo. B.

TABLES

Mutschler Brothers Company

TALKING MACHINES

Victor Talking Machine Co.

TELEPHONE SYSTEMS

Couch Co., Inc., S. H.
Screw Machine Products Corp.

TEMPERATURE REGULATION

Johnson Service Company

THERMOMETERS

Wildner-Pike Thermometer Company

TOILET PAPER

A. P. W. Paper Company
Palmer Company, The
Robertson Products Co., Theo. B.

TOILET PARTITIONS

Vitrolite Company, The
Wels Mfg. Company, Henry

TYPEWRITERS

Underwood Typewriter Company

VACUUM CLEANING SYSTEMS

Spencer Turbine Company, The

VENTILATING APPARATUS

American Blower Company

VENTILATING SYSTEMS

Moline Heat
Peerless Unit Ventilation Co., Inc.

WAGONS

Steiner & Co., J. J.

WAGON HEATERS

Miller Vehicle Heater Co.

WAINSCOTING

Vitrolite Company, The

WARDROBES

Wilson Corp., Jas. G.

WASTE PAPER BASKETS

American Vulcanized Fibre Co.

WATER COLORS

American Crayon Co.

WAX CRAYONS

American Crayon Co.

WINDOWS—ADJUSTABLE

Austral Window Co.
Kawner Mfg. Company

WINDOW SHADES

Draper Shade Co., Luther O.
Steele Mfg. Co., Oliver C.
Maxwell & Co., S. A.
Walger Awning Company

WIRE GUARDS

Cyclone Fence Co.

WIRE WINDOW GUARDS

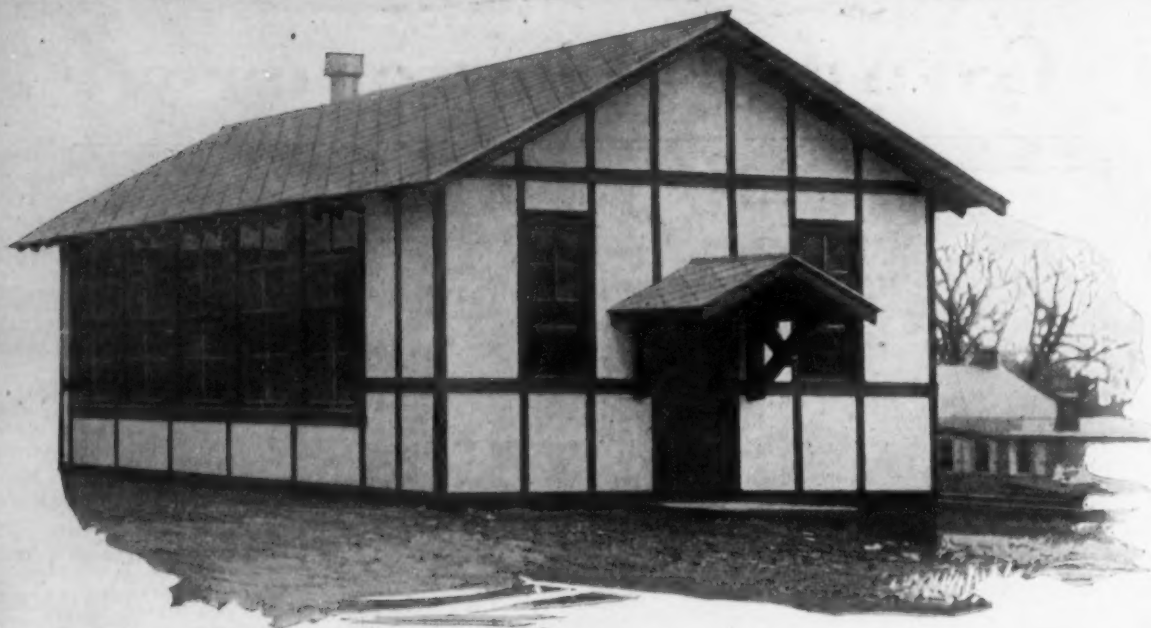
Draper Shade Co., Luther O.

WOODWORKING MACHINERY

American Woodworking Machinery Co.
Oliver Machinery Co.
Sheldon & Company, E. H.

REFERENCE INDEX

	Page		Page		Page
A. P. W. Paper Company.....	9	Gregg Publishing Co.....	106	Palmer Co., The.....	86
Alexander Lumber Co.....	7	Haas Co., Philip.....	89	Payne Company, F. S.....	6
American Abrasive Metals Co.....	64	Heath & Co., D. C.....	100	Peabody School Furniture Co.....	15
American Banking Machine Corp.....	74	Hero Furnace Co., The.....	94	Peckham, Little & Co.....	25
American Blower Co.....	3	Heywood-Wakefield Company.....	103	Peerless Unit Vent. Co.....	83
American Book Co.....	105	Hoffmann & Billings Mfg. Co.....	86	Penna. Struct. Slate Co.....	60
American Crayon Co.....	115	Holden Patent Book Cover Co.....	104	Peterson & Co., Leonard.....	101
American Portable House Co.....	22	Houghton, Mifflin Co.....	106	Pick & Co., Albert.....	93
American Seating Co.....	12 & 13	Indiana Limestone Quarrymen's Ass'n.....	26	Pitman & Sons, Isaac.....	106
American Vulcanized Fibre Co.....	117	Ass'n.....	26	Premier Eng. Co.....	110
American Woodworking Mach. Co.....	118	Jackson Piano Company.....	3rd Cover	Roberts & Meek.....	116
Annin & Co.....	117	Johnson Service Company.....	71	Robertson Products Co., Theo. B.....	11
Armor Clad Mfg. Co., The.....	120	Kawneer Mfg. Co.....	2	Rowles Co., E. W. A.....	23 & 101
Armstrong Co., The.....	118	Keenan Struct. Slate Co.....	60	Rundlo-Spence Mfg. Co.....	94
Asbestos Buildings Co.....	124	Keratol Co.....	110	Russell & Sons Co., Albert.....	139
Austral Window Co.....	4th Cover	Kewaunee Mfg. Company.....	18	Safety Projector & Film Co.....	72
Bausch & Lomb Optical Co.....	98	Keystone View Company.....	98	Sargent & Co.....	101
Bayley Mfg. Company.....	82	Leodor Kunds Co., The.....	17	Schaar & Company.....	101
Beardslee, Chandelier Mfg. Co.....	66	Laidlaw Brothers.....	105	Scientific Seating, Inc.....	15
Binney & Smith Co.....	111	Landis Eng. & Mfg. Co.....	109	Seeger Machine Products Corp.....	90
Blair Company, J. C.....	111	Library Bureau.....	72	Sheldon & Co., E. H.....	101
Bossert & Sons, Louis.....	118	Little, Brown & Co.....	107	Smith, Barnes & Strober.....	68
Brunswick, Balke Collender Co.....	89	Longmans, Green & Co.....	107	Smith System Heating Co.....	113
Cabot, Inc., Samuel.....	100	Lupton's Sons Co., David.....	102	Sonneborn Sons, L.....	83
Central Scientific Co.....	116	Lyon Metallic Mfg. Co.....	102	Speakman Company.....	99
Charles Co., Thomas.....	57	Manchester Mfg. Company.....	113	Spencer Lens Company.....	9
Chemical Toilet Corp.....	112	Marblecol Company.....	69	Spencer Turbine Company.....	4
Chicago Gymnasium Equip. Co.....	112	Maxwell & Co., B. A.....	22	Squires Inkwell Company.....	117
Chicago Scale Co.....	73	Medart Mfg. Co.....	77 & 83	Standard Conveyor Company.....	90
Christiansen, C.....	102	Mershon & Morley Co.....	8	Standard Electric Time Co.....	108
Cleveland Seating Co.....	19	Messner Piano Company.....	75	Standard School Equip. Co.....	18
Clow & Sons, James B.....	85	Miller Keyless Lock Co., The J. B. 25	116	Steele Mfg. Co., Oliver C.....	118
Columbia School Equip. Co.....	103	Miller Vehicle Heater Co.....	116	Steger & Sons Piano Mfg. Co.....	109
Columbia School Supply Co.....	20	Moline Heat, The.....	5	Steiner & Co., Inc., J. J.....	116
Commercial Paste Company.....	114	Moulding Brick Company, Thos.....	94	Thomas Clock Company, Seth.....	109
Couch Co., S. H.....	113	Mutschler Bros. Co.....	14	Twin City Scenic Co.....	10
Cyclone Fence Company.....	65	Narragansett Machine Co.....	67	Underwood Typewriter Co.....	112
Dahlstrom Metallic Door Co.....	80	National Crayon Co.....	115	Union School Furnishing Co.....	116
Deroc & Raynolds.....	78	National Pressed Steel Co.....	94	U. S. Inkwell Co.....	120
DeVry Corporation, The.....	96	National Terra Cotta Society.....	2d Cov.	Universal Fixture Corporation.....	96
Dixon Crucible Co., Jos.....	114	National Wood Renovating Co.....	24 & 115	Victor Animatograph Co.....	97
Dow Company, The.....	70	Natural Slate Blackboard Co.....	1	Victor Talking Machine Co.....	59
Draper Shade Co., Luther O.....	109	Nelson Mfg. Co., N. O.....	25 & 88	Virginia School Supply Co.....	118
Dunham Company, C. A.....	78	Newark Steel Post Co.....	112	Vitrolite Company, The.....	92
Durabilt Steel Locker Co.....	86	N. J. School Furniture Co.....	29	Vonnegut Hardware Co.....	81
Durand Steel Locker Co.....	95	Newson & Company.....	26	Walger Awning Company.....	20
Economy Drawing Table & Mfg. Co.....	105	N. Y. Silicate Book Slate Co.....	120	Weber Costello Co.....	91
Educational Publishing Co.....	63 & 63	Norton Door Closer Co.....	120	Webster & Co., Warren.....	79
Empire Seating Co.....	114	Nystrom & Co., A. J.....	110	Wels Mfg. Co., Henry.....	91
Faber Co., Eberhard.....	35	Oliver Machlury Co.....	113	Welch Mfg. Co., W. M.....	90
Federal Steel Fixture Co.....	118	Paddock Cork Co.....	110	Wilder-Pike Thermometer Co.....	94
Fitzpatrick & McElroy.....	72	Palmer Co., A. N.....	116	Williams, Inc., John.....	120
Gillis & Georgetown, The.....				Wilson Corp., Jas. G.....	120



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ASBESTOS
SCHOOL HOUSE

The school house, of all buildings, should be fireproof

Fire proof

There is probably no other building which public sentiment so loudly demands should be fireproof as that in which the children are housed. That is why so many communities are turning to

ASBESTOS SCHOOL HOUSES

No paint

These buildings are made with one or two rooms and we ship them to you practically complete.

Ambler Asbestos Building Lumber and Ambler Asbestos Shingles used in their construction are composed of selected Asbestos fibre and Portland Cement and are therefore absolutely fireproof.

No repairs

Write for descriptive booklet today!

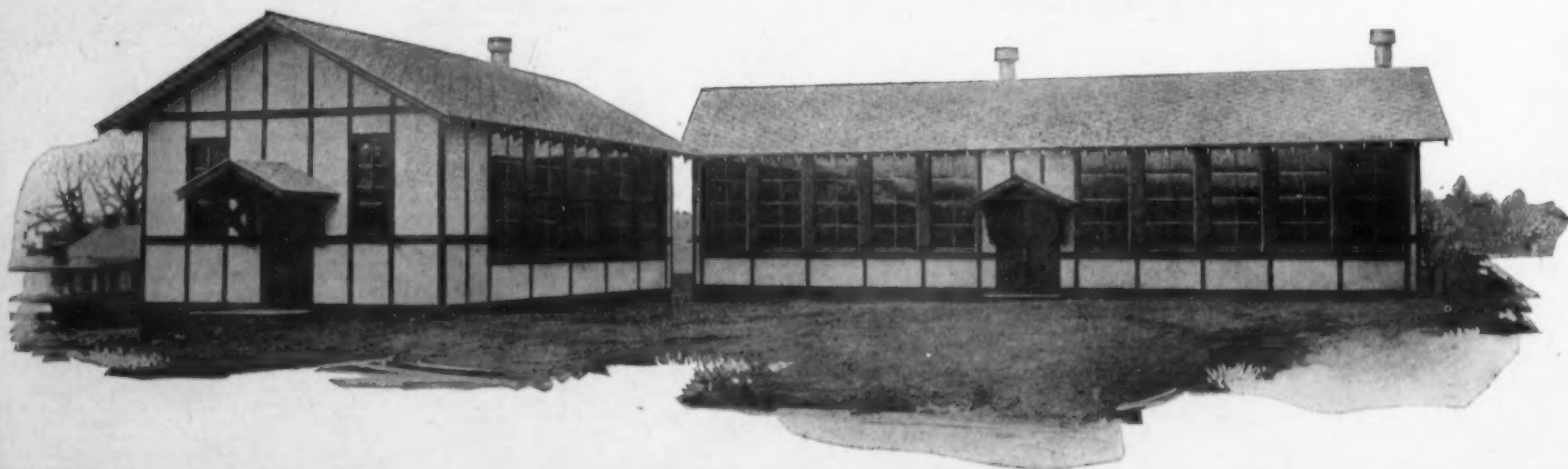
Department S

Asbestos Buildings Company

1927 Market Street, Philadelphia

THE SINGLE ROOM ASBESTOS SCHOOL HOUSE.

TWO ROOM ASBESTOS SCHOOL HOUSE.



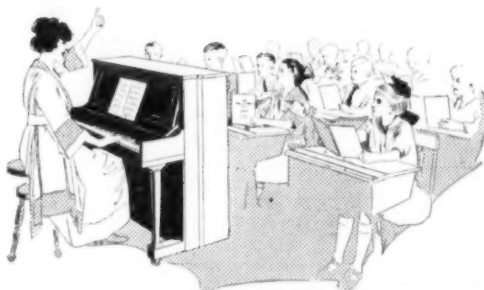


The Miessner Piano is a handsome piece of furniture of dignified simple lines. The case is finished in fumed oak or mahogany.

The choice of 2173 music teachers

MUSIC instructors in schools and colleges all over the country are choosing the Miessner Piano, the original small piano, made by the Jackson Piano Co. It has a world wide reputation for quality and tone.

It is so small that you can look over it while directing the class; so light that two boys can move it from room to room. And yet the Miessner has a full-size 7 octave key board.



Just a few of the educational institutions using Miessner Pianos

	First Order	Repeat Order
Chicago, Ill.....	4	138
St. Louis, Mo.....	1	36
Minneapolis, Minn.....	1	37
Dallas, Texas.....	1	39
Schenectady, N.Y.	1	27
Joliet, Ill.....	1	12
Cornell University, N.Y.	1	25
Duluth, Minn.....	1	12
Warren, Ohio.....	1	10
Cleveland Heights, O.....	1	12
Akron, O.....	1	21
Cedar Rapids, Ia.....	1	10
Cleveland, O.....	1	27

In clearness and resonance of tone it far surpasses many larger, costlier pianos.

These are a few of the reasons why, in the first 48 weeks of its existence, it was sold to schools in all of the 48 states of the Union. And now over 2173 teachers of music have selected the Miessner as the one practical piano for music classes. What greater tribute could there be to its efficiency?

The MIESSNER

The Little Piano with the big tone

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Clip this Coupon and mail today

Special reduced prices given to schools brings the cost of the Miessner down to a sum lower even than the cumbersome upright.

That you may find out for yourself what an unusual instrument the Miessner is for beauty of tone and for convenience, we will send it to you for ten days free trial in your own class room.

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122 Reed St., Milwaukee, Wis.

Send me the illustrated Miessner Catalog, complete details of your ten-day trial offer, and special price to schools to

Name

School

Position

City State.....

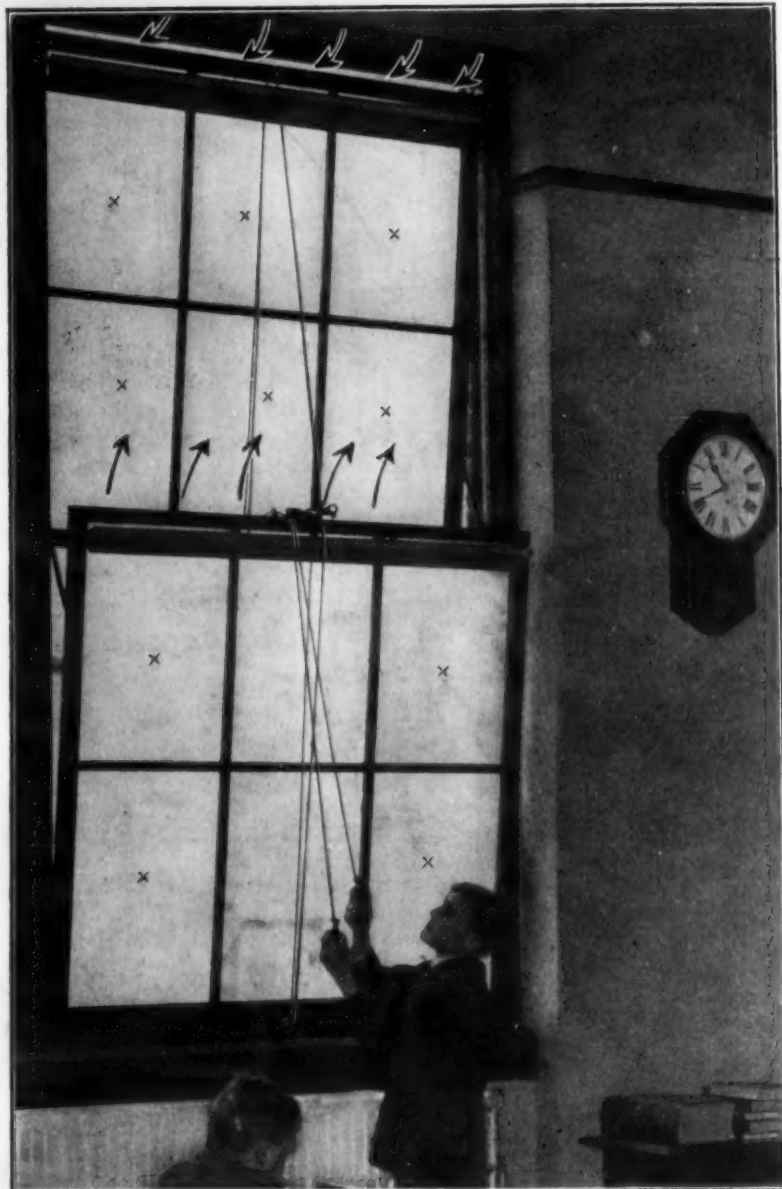
THE JACKSON PIANO COMPANY

122 REED STREET, MILWAUKEE, WISCONSIN

Originators and exclusive manufacturers of small pianos.

AUSTRAL SELF-BALANCING VENTILATING WINDOWS

FOR SCHOOL ROOMS



EASILY OPENED AND CLOSED

AN ENCOURAGEMENT TO BETTER VENTILATION

Recognizing the absolute necessity of proper ventilation, those entrusted with the far-reaching responsibilities of School Management will want to do everything in their power to encourage everything that tends to provide better air in the school rooms, and to discourage everything that tends to prevent it.

How often do teachers and pupils neglect to open windows that should be opened, and for no other reasons except these two:

- 1.—The windows are hard to open and close.
- 2.—Or, opening them creates an undesirable draft.

Both drawbacks are absolutely overcome by **Austral Windows**.

Austral Windows are so accurately balanced that they can easily be managed by a child.

VENTILATION WITHOUT DRAFT

This photograph shows how the outside air enters the room without striking the heads or the feet of the pupils—the two points of the anatomy most susceptible to “catching cold.” Viti-ated air is forced out at the top of the window.

The **Austral Window** here shown has a horizontal (instead of a vertical) opening between the two sash at the center, which admits fresh air without draft even on the most blustery day.

The aperture thus created is 10 to 12 inches wide and extends the full width of the window.

On mild days fully 90% of the entire window area is available.

AUSTRAL WINDOW CO.

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